

AMERICAN NURSERYMAN

The Nurseryman's Forte: To Make America More Beautiful and Fruitful

OCTOBER 1, 1937



Philadelphus Atlas

Facts and Figures That Make Up Prices
Progress in Nut Breeding
Marshalls' Golden Anniversary
Native Plants of Garden Value

AMERICAN NURSERYMAN

Chief Exponent of the Nursery Trade

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FIFTY YEARS' PROGRESS.

Many a fascinating tale would be unfolded if the heads of some of today's large nursery enterprises would recount their history from the simple beginnings in pioneer days. Those who heard A. M. Brand recount his father's anecdotes before the last Minnesota nurserymen's convention will not soon forget them. Others could tell us as interesting stories of nursery progress, but historians of the trade are few and infrequently found.

Fortunately, they sometimes are found. When a history of Washington county was published about a year ago, included was a generous description of Marshalls Nurseries, some of the material having previously appeared in Nebraska's Own magazine. When one reads in this issue the account of the firm celebrating its golden anniversary this year, one realizes not only the extent of its operations, but also the extensive contribution to the community and to the trade of the men who have built this business. Necessarily brief as such a sketch must be, it still suggests something thrilling in the development of so substantial an institution from a pioneer undertaking in the western prairies. Congratulations are indeed in order on the Marshalls' golden anniversary.

SELLING AT A PROFIT.

Within the past few years there has come an increasing consciousness that not many nurserymen were deriving from their businesses, even in the best days, a net income in adequate proportion to either the volume

The Mirror of the Trade

of business transacted or the investment involved. The few who got rich did so through appreciation in land value, and the disappearance of some of that form of wealth in the past few years made the matter more plain. While many nurserymen enjoy a good living, it still is a poor one from the point of view of an accountant, who looks for a certain percentage of profit and a certain return on capital assets, without reference to the amount of the bank balance.

When nurserymen got down to using pencil and paper, they discovered some surprising things. Not a few turned their attention from production to selling, realizing that the merchandise was not at fault, but rather its presentation to the public.

The experience of many firms would be enlightening, and that one case can be presented is fortunate. Any nurseryman who has not considered this phase of his business will have an eye-opener in the account of his firm's recent experience presented by Hubert S. Nelson in this issue. And nurserymen who have given the matter thought will find in it facts which should be of decided help in their study.

A KIND WORD.

Last month began the publication of a new magazine, Pacific Gardens, with a subtitle, "Southern California's Garden Newspaper." It is issued weekly in newspaper form and on newsprint paper, having as editor-in-chief Ernest Braunton, whose name is well known to many nurserymen in the east as well as to most of those on the Pacific coast. In the second issue the editorial columns carried a tribute to the pioneer nurserymen of California, as well as to the nurseryman of today, who is characterized as not less alert than men in other lines of business, but constantly seeking to improve what he has and searching for that which is better and experimenting with it for the benefit of the planter.

"In this work," continues the editorial, "the plantsman stands as a buffer between the planter and failure. Many of the new introductions in ornamentals and fruits result in distinct monetary losses to the enterprising nurseryman, yet he is not de-

ferred from constantly striving for the best, not only in the novelties, but in methods for propagation and growing plants for the public.

"Every reliable grower and dealer takes a pride in distributing fine stock to the public and is proud, in after years, to view splendid parks and gardens grown to fruition from planting the fine stock he sold."

Such publications as this new one carry information to amateur gardeners so that nurserymen's products thrive better and produce more, to the benefit of seller and buyer, and to the advancement of horticulture.

PHILADELPHUS ATLAS.

Among the newer philadelphus hybrids, Atlas should take quickly with the public because of its exceptionally large single flowers. Individual blooms often measure over two and one-half inches across and, with the clusters of stamens in the center, take on the appearance of single white roses with the lovely fragrance of the mock orange. This new Lemoine hybrid has received an award of merit from the Royal Horticultural Society of England.

The growth of this shrub is tall, somewhat suggestive of that of Philadelphus Virginal, and there appears to be no reason why Atlas should not become as popular, at least when stock becomes more plentiful in this country. The nature of the growth can be noted in the front cover illustration, which also reveals the floriferousness of this mock orange and the fine form of its flowers.

Propagation is the same as for other philadelphus hybrids; namely, hardwood cuttings can be taken in early fall, stored over winter in a cold pit or storage room and lined out in spring, or softwood cuttings, which root readily, can be made in summer. With a few plants in his display grounds and some publicity at the time the bushes are in bloom, a retail nurseryman should be able to move many Atlas mock oranges.

NUTS furnish starches, fats and proteins, the three essential food elements, but the proportions of these elements vary widely with different species.

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The Chief Exponent of the American Nursery Trade

*The Nurseryman's Forte:
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OCTOBER 1, 1937

No. 7

Facts and Figures That Make Up Prices

How Leading Landscape Firm Computes Prices to Make a Profit Told Michigan Association by Hubert S. Nelson, Vice-President of Swain Nelson & Sons Co.

Rockefeller is dead, but the ruling policy of his business life is as good now as it was eighty years ago when he first adopted it. In 1857 John D. Rockefeller, a boy of 17 years, had already saved his first \$100. It is none too easy to save \$100 today, but for him it was a remarkable feat, for at the time he only received \$3 for one week's work, a week of hard work and long hours. Instead of keeping his savings in a mattress or pitcher, as was the custom of the times, he loaned it out at seven per cent, the current rate of interest to business men and farmers. After one year he realized that he would have had to work for over two weeks to equal the earnings of his savings. He decided that from then on he would save regularly and always keep his savings at work for him. The past eighty years have shown how well he stuck to that program and also what a wise policy it is. His experience is a forceful demonstration of how we too can adopt the same policy and make money work for us.

Of course, you have to have money before you can put it to work for you. It is, therefore, necessary, as a first step to accumulate money, to pay out less than you take in. In other words, to save.

To emphasize the importance of saving money we have a statement from no less an authority than James J. Hill, the man who because of his tireless efforts in building up and developing the west earned for himself the title of empire builder. To a young man searching for the rules of success he said: "If you want to know whether you are destined to

be a success or not, you can easily find out. The test is simple and infallible. Are you able to save money? If not, drop out. You will lose! You may think not, but you will lose as sure as fate, for the seed of success is not in you."

Now, if the ability to save is the seed of success, surely one element very important in bringing the seed through the period of germination and growth into the fullness of maturity is the ability to put these savings to work for you—the ability which characterized John D. Rockefeller, through all of his life.

Business Enterprise Must Save.

By this time you are probably wondering, "What has all this to do with the nursery and landscape business?" It has just this to do with us. What is true of an individual is equally true of a corporation, company or partnership. The financial side of a business is essentially the same as that of a man. It has income, it has expenses, and if it is successful it spends less than it takes in. In other words, before a business can be called successful it must demonstrate the ability to save money—the ability to make profits.

It is equally true that the degree of success which a company can attain depends not only on how much profit it is able to make, but also on how well it invests its profits—how well it makes its savings work for it.

I am going to discuss the one factor which has more to do with whether you will make a profit or not than anything else—prices, the amount of money that you get for your goods and services.

It would take several days to cover the whole field of prices; so we shall have to limit ourselves to touching on a few of the high spots.

Making a profit would be a simple matter if our customers would give us \$1,500 and say, "Go ahead with the landscape work at my home as long as the money holds out." We could then set aside the amount of profit we felt necessary, deduct the right percentage for overhead and pay out the balance for direct expenses.

But the world doesn't do business that way; in fact, it is just the reverse. Mr. Jones demands to know in advance how much he will have to pay for a certain landscape job. He then decides whether it is worth it or not. It is necessary, therefore, for us to put a price on our goods and services. Now, you are the one who sets your prices and you can set them at any figure you like, but if you expect to make a profit you must have two things in mind—on the one hand, your cost of doing business, and on the other, the value to your customer of the work you can do for him. For while you set the prices, it is your customer who O. K.'s them, and for that reason his opinion of the value to him of your work is even more important than your costs. For example, if your costs were so high that you had to charge \$25 for a 1½-inch elm you can readily imagine what your chances would be of selling one at that price. Your customer would not see that much value in so small an elm tree.

There can be no hard and fast rules whereby you can figure your

prices so as to insure a profit, because in the last analysis your prices will be whatever value you think you can show the customer that your work will be to him. That is rather involved; so I'll repeat it. Your prices will be whatever value you think that you can show your customer that your work will be to him. Not the value that you think your work will be to your customer, but the value that you can show him that it will be. He must agree on the value before he will pay your prices.

Salesmanship Sets Prices.

Here is where salesmanship comes in, and I don't mean high-pressure selling either. Salesmanship is nothing more than showing value to a customer, showing him how he will get more enjoyment out of what you offer than from the money it will cost him to buy it.

After you have determined what prices you think that you can get, you can, by estimating your volume and applying your cost percentages to this estimate, arrive at an estimated profit or loss for the season. If the estimate shows a profit, well and good; if, on the other hand, it shows a loss, you must do one of three things or, for that matter, any or all three of them: (1) Reduce your costs. (2) Increase your volume. (3) Improve the quality of your work and service so that your customers will agree to a higher figure. There is a fourth possibility and that is decide that you guessed too low in the first place. Raise your prices and then go out and get work at your new price. There is a lot that can be done by getting the right mental attitude about your prices. I am going to illustrate this by our experience last spring. (In reading this over I realize that throughout I have painted our company in rather bright and glowing colors and, lest I give you a wrong picture, let me say right here that we are far from perfect. We make mistakes, lots of them, and we do a lot of dumb things. We have our troubles and kicks the same as the rest of you. The reason for the illustrations presented is that it is better to give an illustration of the right way to do a thing and say, "Do that," than give a picture of the wrong way and say, "Never do that." Had I planned to use "the never do that" method I could have found illustrations in our company just as easily.)

Last winter we decided to raise prices and make up a tentative price list. Then by applying the formula of testing costs against estimated volume we were embarrassed to find a red figure at the bottom. That left us the four alternatives mentioned earlier. (1) Reduce costs—this was out, obviously, because we knew that costs were more apt to increase than decrease. (2) Increase volume—of course, we were going to try and do that anyway, but at best volume is uncertain and we wanted to be able to make a profit on the volume we felt fairly certain we could get. (3) Improve quality—here again the answer was "Of course," but in this case it is a long-pull method. We are doing much better work than ever before, and even fifty per cent improvement would not help much for the spring season, because it takes a while for the effects of improved workmanship to be well enough known to make higher prices easier to get. This left us the fourth alternative. We began to study our prices in a new light, and, believe me, if any of you have not done this, you should. It will open your eyes and give you courage. We dug up an old 1929 price book and soaked up a little "whoopie" era pricing. After a little of that we could see that we were practically giving things away. Then, in a long and earnest discussion, the following facts came up:

Formula to Test Costs.

Costs, in general, are nearly as high as they were in 1929.

Labor costs have advanced about three times as fast as our prices, percentage wise.

General business conditions, while not so good as 1929, are definitely on the upgrade.

A building boom is in progress.

Prices outside our industry have advanced much more than ours.

We are entitled to make a profit.

You know there is no fun in doing \$150,000 business (this was our spring estimate) and finding at the end of the season that we have just swapped dollars—that all we did was collect money from customers Tom, Dick and Harry, and then pass all these dollars out to laborers Harry, Dick and Tom.

All in all, we realized that we were chumps; so we attacked the prices again. This time we did a better job. We applied the old rule for nursery stock prices of two and one-

half times the wholesale price for shrubs and twice the wholesale price for trees and evergreens. Of course, some items on which there is still a large surplus had to be chiseled a bit, and some items of which there is at last a shortage we hiked up a little. Then we added for guarantee. With the labor items, such as grading, seeding, planting and stonework, we started with labor costs, or production costs, added selling and overhead and then fifteen per cent for profit. Here, also, we had to juggle a little. We cut the grading figure a little, because the competition is greater for that work and we cannot substantiate a much higher price than our competitors. On the other hand, on stonework we boosted the price a little because here is a specialized job. We have made a thorough study of stonework, and our stonemen have been specially trained how to lay stone so that it looks natural. They have studied the formations up in the Wisconsin stone lands, where most of our stone comes from, and therefore we think that we do a little better job than most of our competitors and that therefore we are entitled to more money.

Revising Upward.

There is, however, one thing we try to do and that is make a profit, at least a small one, on everything we do. We are much opposed, for example, to the policy of planting nursery stock at cost in order to sell the stock because we feel that we are entitled to a profit on the labor of planting just as much as on the plant. We consider planting at cost an unsound business policy. We do make one exception to this rule, however. Not from choice, but because it is one of our unsolved problems. This exception is our design work. While we do occasionally charge for plans, the greater number of them are thrown in as a sales help, the idea being that we are more apt to get the job if we have a well designed plan.

The result of all these price studies was a substantial rise all along the line, and while our prices are still much lower than in 1929, they are much better than they were. The net result for the season was a profit of \$10,000 on a volume of \$154,000. We do not consider this a satisfactory margin of profit, but last spring the trouble was more bad weather than low prices. In our "neck of the

"woods" we got a late start because the frost stayed in the ground too long and then when the season finally did get under way we had rain about every three days. This added to the direct cost of doing business and cut deeply into profits. This fall on the same volume I'm sure that we shall do better.

Current Prices.

A representative list of prices is as follows, on stock we furnish, plant and guarantee:

3-inch American elm	\$11.00
4-inch American elm	21.00
4-inch Norway maple	16.00
3-inch sugar maple	16.00
7/8 Crus-galli thorn.....	20.00
8/9 Crus-galli thorn.....	27.00
5 to 6-foot Douglas fir	11.00
6 to 7-foot Douglas fir	18.00
5 to 6-foot Viburnum Lentago	2.80
4 to 5-foot Gray dogwood	1.70
4 to 4½-foot Koster spruce.....	20.00
5 to 5½-foot Koster spruce.....	28.00
3 to 4-foot Spiraea Vanhouttei..	.80
3 to 4-foot Ligustrum amurensis....	.90

Now how do we get these prices? How do we show our customers that the value to him is worth what it costs? In the first place, we believe in our prices, and that is important. We have built up a well trained organization. Our design staff is manned by graduate landscape architects and compares favorably with most of the professional offices. Our planting and landscape foremen are well trained and thoroughly supervised. So we know that we can give full value to our customers. We honestly believe that our customers get more value for their dollars when they come to us at our prices than they would by going to any of our competitors who sell on price.

Giving Customer Value.

We arrive at this conviction by studying the jobs we lose on price and by comparing the design, the choice of nursery stock, the size of the plants and the quality of workmanship of the job completed with what we planned to do. We generally find the cheap, fast-growing varieties in small sizes in locations that call for dwarf material, and all too often the plantings have no design at all and, being out of scale, three or five years after completion will have to be torn out and replaced. That is not giving the customer value.

But even more convincing than studying these jobs are the comments which some of our customers make. Two examples of this will serve to show what I mean.

Two years ago we did a job for Mr. Z., who had been trying to carry out a scheme which he had wanted for a long time. Over a period of five years he had engaged several firms to carry out his planting scheme, but had sustained about eighty per cent loss on the large trees that had been planted. In June, 1934, he received a card from us which stated that we would plant trees that were in full leaf and guarantee them for two years. He came to the nursery the next day, which was Sunday, and said, "You fellows must either be good or be crazy. Other concerns have planted trees at my place in spring, the ideal time of year, without a guarantee. I have had big losses. Here you come and say that you will plant them in the middle of the summer and guarantee them." Needless to say he gave us an initial order, for several large Norway maples. When we inspected the location we found what should have been discovered five years earlier. The surface of the lawn was only two feet above the level of the drain. Obviously, the maples planted before were standing in one and one-half feet of water. We told him that we would accept his order only after he had corrected the drainage problem. This he was glad to do, because what he wanted was not two rows of trees planted on his lawn, but two rows of trees growing on his lawn. Incidentally, the trees were planted in late August and not one of them even wilted. We have done work for him every season since then. Last spring he told his gardener that, all told, he had spent \$30,000 for landscape work, but he realized now that even though our prices were half again as high as the nearest competition he would have saved money by getting us at the start.

Last fall we did a small job for a man in Lake Forest. It was an entrance planting, and the spot was very shady. I believe he said that it had been planted four times and had never looked right even thirty days after the new plants were in. The answer was simply a case of proper plant material, but the proper planting cost about twice as much as he had paid before. About a week ago he told me that he had only one kick against our company. "My only kick," he said, "is that you didn't make me buy from you seven years ago when I built my home."

In both these cases our prices were much higher than our competitors, but

we were not selling on price—we were selling the customer what he wanted and what he should have. We sell a real service as well as plants and labor and would rather lose a job than have to put in the wrong material in order to reduce the price, because we know that in the long run it pays. This service is worth a great deal to the buyer, and he is willing to pay more for plants that are backed by this service than for plants simply dumped in the ground.

Forestalling Complaints.

One example on the other side of the fence happened during the depression. We were called in to plant an entrance with evergreens. We made three designs at three different price levels, the top figure going with what should have been the ideal set-up. The trouble was that we were afraid that the price was going too high; so we figured out plants that were really too small and too far apart. He chose the top figure and when the job was finished, instead of having a lovely job, he had one that just didn't look right. One year later it looked even worse; so we went to the owner and offered to redo the job as it should be done in the first place, giving him 100 per cent credit on what he had paid as well as allowing him to keep the evergreens that were worth moving to some other location—in other words, charging him only what it would have cost to do it right in the first place. How much better and how much cheaper for us it would have been to do it right the first time!

Now, why did we make this offer? For two reasons: (1) We have a reputation for quality work that has been built year by year since four years before the Civil war. We just can't afford to do bad work, because one year of bad work will tear down a reputation that took many years to build. (2) We have a policy to which we strictly adhere—adjust all complaints promptly and generously so that the customer is really satisfied and, if possible, adjust before complaint occurs. This is a relatively new policy.

And this brings us to the other element on the road to success—investing profits. We have shown the need for saving money or making profits and how necessary it is to have your prices right if you want to make these profits. Now, what to

do with the profits after you make them.

There are roughly six classes of investment for profits: (1) Adding to your personnel some one who will improve the quality of your design, work, product or service. (2) Bringing your machines and equipment up to date so as to improve your work. (3) Increasing the size or efficiency of your office, nursery, sales yard or all of them. (4) Investing in securities or bonds of other companies or of governments in order to have a liquid reserve. (5) Improving and increasing your advertising. (6) Investing in satisfied customers.

Investment of Profits.

These are not listed in order of their importance; in fact, I believe that the last is the most important, and for that reason it is the only one I'll touch upon. As a matter of fact the others have been stressed so often before that there is little to add—but it is impossible to say too much about customers and how to satisfy them.

You will notice that in all six points named, if the investment is made carefully, it will more than pay for itself. That is why I have been careful to say invest profits, rather than spend them. Profits which are spent are gone for good, but profits wisely invested will come back with interest to be invested over and over again.

Why are satisfied customers so important? Without them you would be out of a job. Did you ever stop to think that your customers pay for the food you and your family eat and the clothes you wear?

Satisfied customers are your most valuable asset. This item sometimes appears on a balance sheet at a large figure under the caption, "Good Will," but too often it is forgotten and neglected. Do you, for instance, have a definite policy for keeping this asset live and active and for increasing it? If you have not, there is probably nothing that you could do that would be so profitable as to develop such a policy and plan to invest some of your profits to build this asset.

A satisfied customer is one who is so pleased with the job you have done for him and the treatment you have given him that he will come back to you when he is in the market again and will gladly recommend you

to his friends and sometimes even go out of his way to sell for you.

Of course, one of the best ways to increase your stock of satisfied customers is to improve your work and keep on improving it. Never be satisfied with the quality of the work you produce, but always strive to do better on the next job. Always try to do your work better than your customers expect you to. Then give better service and much more of it. Now, by service I do not mean making designs and planting nursery stock. It isn't so much the big things that count in customer's satisfactions. Those are taken for granted. They are the things that he is paying for. It is the special attentions that you give to him and to his job that count.

For example, you drive up to a gasoline station and ask for ten gallons of gasoline. The attendant comes out promptly and gives you the gasoline; you pay him and drive off. In that transaction no service has been given. You paid for ten gallons of gasoline put into your gasoline tank. Here, service commences when, after the tank is full, the attendant wipes the bugs off your windshield and cleans your lights, when he tests the water and oil. You do not pay for those things. They are supplied by the company as an investment of profit in customer good will.

Adding to Service.

There is one sure way to please your customers. Treat them as they like to be treated. Take the trouble to find out how they like to do business, whether they like detail or just generalities—fit your method to the individual. Give special consideration to his ideas and try to work them into the design of his grounds in such a way that they will be a feature rather than an eyesore. If you take the trouble to find out just what he wants his grounds to be, how he wants to use and enjoy them, and then work it out so that it is even better than he expected, you will tie him fast to your company. Repetition of this treatment will get around and build you a reputation that will help you grow beyond your fondest dreams. Incidentally, you will get a big kick out of it in addition.

We have covered a lot of ground, but along the road we have found the answer to the rather difficult

riddle: How can it be in the customer's best interests for us to raise our prices?

By raising your prices you have more money to spend in giving him a better job. Better prices allow you to make a profit. (The ability to do this, you will remember, is the seed of success.) With this profit you can nurture this seed by investing the profit in more highly trained personnel, more efficient equipment, larger and more comfortable offices, all of which will give your customer more satisfaction, more pleasure in the work you have done for him and, lastly, you can then afford to treat him as he likes to be treated.

COVER CROP FOR PEONIES.

On page six of the September 15 issue it was stated that soy beans and rye are objectionable as summer cover crops for peonies as they are too gross feeders and because they put the peonies into shade. Here in the south, however, a carpeting of some shallow-rooted annual through summer is especially to be desired, to be burned off just before winter. This burning should nearly clear the field of leaf spot, if present, and would make unnecessary the removal of the tops. Crab grass would be good, but it gets too rampant and the burning kills all the seeds, so that there will be no crab grass the next summer. Pasturing with sheep would keep down the rampant growth, reduce the demands of the cover crop on the soil and give some fertilization. Lespedeza may be the ideal plant.

On page two of the same issue the tree peony was said to be "perfectly hardy wherever the lilac thrives." This is not true here. That is not due to any excessive cold here, but to excessive warmth when it ought to be cold. Like the Paper White narcissus, also King Alfred and most of the poetaz, also the regal lily, the tree peony is too eager to grow when a few days of warm weather come, only to meet with disaster when hard freezing follows.

Benjamin C. Auten,
Carterville, Mo.

PINCHING off the top of a graft shoot when it has reached the length of a few inches has been found to permit the formation of a firmer union between scion and stock.

Progress in Nut Breeding

Work in Development of Improved Commercial Varieties and Status of Current Projects Reported by Government Specialists

Until recent years there was practically no attempt to develop better nut trees by controlled breeding. Nature's products were accepted as good enough. There is not much breeding work under controlled conditions today, but it has been started, and though the work has many difficulties, it also has great possibilities for those with the inclination, the time and the facilities to carry it on. In the 1937 yearbook of the United States Department of Agriculture H. L. Crane, C. A. Reed and M. N. Wood describe the present status of the work done in breeding nuts.

Chestnut breeding became a pressing need because the American chestnut, a magnificent tree characteristic of large forest areas in the eastern United States, was practically exterminated by chestnut blight, a disease from the orient that first appeared on Long Island, N. Y., in 1904. Some hybridization of American and European chestnuts had been done before the blight appeared, but the hybrids were doomed because both parental species are highly susceptible. The Japanese chestnut tree is quite resistant, but the nuts lack flavor. Much more promising is the Chinese chestnut, first extensively introduced into the United States in 1907, which is highly resistant to blight and produces a nut as large as the European and often as fine in quality as the American. Present selection and hybridization work, therefore, is practically confined to the Chinese chestnut, with consideration being given to the Japanese. The United States Department of Agriculture and the Illinois agricultural experiment station and several private breeders are engaged in this work. No varieties have been officially released by public institutions as yet. Chestnut blight will quite probably be overcome by breeding and it is not impossible that another major enemy, the chestnut weevil, will also be overcome.

Filberts.

Commercial filbert growing is confined to a region in the Pacific northwest, particularly the Willamette

valley of Oregon and parts of western Washington, naturally adapted to the superior filbert varieties, such as Barcelona, Du Chilly, Daviana and White Aveline, of two European species. In the eastern United States these European filberts are handicapped by a fatal blight, which spreads to them from the American species, and by lack of winter hardiness. A few somewhat superior American varieties, Rush, Littlepage and Winkler, are available for growing in the east, but the breeding problem here is one of developing hybrids with resistance to disease and cold. In the Pacific northwest, the problem is to develop filberts commercially and culturally superior to those now grown.

Almonds.

Almond breeding is being systematically carried on by the Department of Agriculture in co-operation with the California station at Davis, with the objective of combining in a few new and definitely superior varieties as many as possible of the superior characteristics of the existing varieties. If this is successfully done, American almonds should not only dominate the American market, but should have a place in foreign trade. Practically no breeding work has been done with the pistachio nut, which is adapted to hot, dry regions, though it deserves attention. The tung tree, the nuts of which furnish a valuable oil that dries more rapidly and is more resistant to water than linseed, was introduced into this country from China by the Department of Agriculture in 1905. The Florida station began hybridization work in 1929, and the Georgia station began selective breeding in 1933.

Pecans.

The breeding of pecans, the most important nut of the hickory group, is somewhat confused by existing uncertainties as to the sizes of nuts wanted by the market. The shelled-nut market wants small pecans, and it is doubted whether they can be grown profitably except in uncultivated forest groves. The one-time

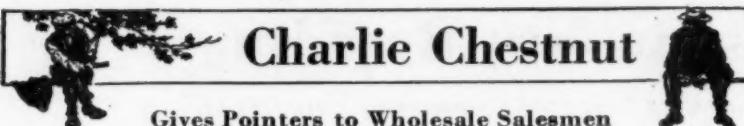
demand for large pecans has steadily diminished, so that breeding for extra size no longer seems desirable. In addition, most of the best of the older varieties of pecans proved to have so many drawbacks that the nuts of several varieties are now mixed together before being marketed. Nevertheless, selection and hybridization proceed with certain definite objectives—hardiness (for northern pecans), disease-resistance, fruitfulness, size of nut (at present a compromise), shell thinness, shelling quality and kernel quality.

Hickories other than pecans have received little attention from breeders—the market demand is too limited. Nature has accomplished considerable hybridization between the various species, pecan, shagbark, shellbark and bitternut, and trees of some hybrid forms are available commercially. Hickories superior in thinness of shell, cracking quality and flavor would fill a real need.

Walnuts.

Breeding the Persian walnut—called English walnut because it first came to this country from England—has largely been confined to selection, which has about reached its limit of practicability. The next step is hybridization to develop varieties resistant to blight and possessing greater fruitfulness, superior hardiness, better cracking quality and superior flavor.

Selective breeding with the eastern black walnut is being conducted by the Department of Agriculture, the Illinois, the Minnesota, the Ohio and the New York stations and many private breeders. Similar work with the Japanese walnut—much like the butternut—is being conducted by the Connecticut station and several private breeders. The United States Department of Agriculture is now starting a project to create a form of walnut unlike any now existing by crossing the Persian walnut with the butternut for hardiness and flavor and with the eastern black walnut and the Japanese walnut for sturdiness and fruitfulness of tree.



Charlie Chestnut

Gives Pointers to Wholesale Salesmen

There is a few pointers which I have found out which is tricks of the trade as you might say, and which I have decided to explain to the different nurserymen. I am going to lay bare the inside facts about the wholesalers travelling agents which goes around calling on the trade.

It always looked like to me that these men had a snap which is a fact as I will explain. In the first place they get to go to all the different conventions and furthermore they always have there expenses paid. I have made a survey among the different salesmen that calls at our place as I have a notion that I might take to the road especially if my boss decides to be wholesale which he is threatening to do. I have found out that an experienced travelling agent always puts down in his expense acct. as follows: "Breakfast 75c" In fact I know one that makes out his expense acct. a week in advance. Here is where the salesmen gets a chance to make up for going to the movies, new hats, underwear, etc. for the most they ever spend for breakfast is 15c for one cup of coffee and 2 donuts. This way they is 60c to the good. It is the same for all the other meals. Dinner runs from \$1.25 to \$1.50 when you know it aint no trick to get a good meal for 50c anywhere. Supper he puts down for \$1.00 and it generally runs 25c at the most. Anybody who is good at figgers will see that a salesman makes a average of \$2.00 per day on his meals which makes \$14.00 per week which is the same as one of our best hands gets at the nursery for 6 days of hard work. But that is only the beginning.

Now take hotels. Anybody knows there aint any use to get a room and bath except Sat. nite. Other nites you can get a good bed for a dollar or 50c if you stop at a auto camp. But a good experienced salesman puts down, "Room at Peoria \$4.50," although there aint a room in the hotel for over \$2.00.

Its a funny thing that these men when they are at home dont think nothing of putting on a clean shirt on Monday A.M. and wearing it

clean thru to Sat. nite. But when they get on the road they charge up a complete washing and ironing every day, which makes 6 to 10 dollars extra on the expense acct. I have figgered out they would be money ahead if they would throw the clothes away and buy new ones every day. Generally tho they dont really send to the laundry at all but mail there stuff home to there woman to wash. In this way they are only out 20c for postage and really it is no expense at all because they have a acct. for postage in the expense book anyway.

If your expense book dont have a item "miscellaneous" in it by all means you should throw the book away and get one with a big space for miscellaneous as this is a chance for a big cleanup. This is good for at least \$10.00 per week if the salesman is sending lots of orders, but when there aint any business to speak of you will find the miscellaneous acct will run light. A man has got to judge about how the expense acct will look to the boss compared to what orders he is sending in. In good times about \$40.00 per week is what the boss gets cheated per week. It is a good idea to keep writing in how you are working every nite till 11 p.m. and all day Sunday and how the competition is very bad etc. This will help to ease the shock of the expense acct. Always send the expense acct in the same mail with the orders and dont send it Monday A.M. as generally the boss has a headache from Sunday and is in a bad mood on Monday.

As I have said, the salesman is a purty soft job. He dont do nothing but ride around in a auto which is also on the expense acct, and visit with nurserymen. If they want anything he takes there order or else he says I will see you at the convention. If you dont want to buy nothing you can always say I aint figgered up yet or else I will see you next fall.

Generally the salesman comes in and shakes hands and gives out a 5c cigar (which is charged up for 10c in the expense acct). Probably he will start out by saying, "Do you

want any Montmorency for spring? This is all sold but I could let you have a hunnert which I have been saving for you." The nurserymen says, "Hell no, I dont want any Montmorency, in fact I will never buy nothing again from your outfit. Those asparagus roots you sent me last spring was no good and none of them grew." (Probably the box fell down in back of some baled hay in the barn and the nurserymen did not find them until late in July.) The nurserymen says, "You have got to make good on that asparagus before I will buy anything and furthermore the spirea you sent me was away under sized which I could have bought from so and so at $\frac{1}{2}$ the price.

It takes from $\frac{1}{2}$ hour to half a day to get down to business and iron out all the argument about the last order. A good salesman will try to get you down to a beer parlor to talk things over as many a carload of stuff has been sold under the influence of a whiskey sour and 5 or 6 beers. Not that I approve of it but so long as I am out to give important pointers the different nurserymen might just as well get the truth of it.

TREE PLANTING IN IDAHO.

Coöperative plantings in Idaho encouraged by the extension service and the school of forestry amounted to 185,000 trees the past spring, three times the number planted last year. An additional 40,000 trees were planted by the soil conservation service on farms within its project areas. Individual farmers, who either propagated their own stock or secured it locally, have planted a further undetermined total.

The 185,000 trees furnished by the school of forestry consisted of 125,000 black locust seedlings which were planted for wood lots in the irrigated districts of southern Idaho, 19,000 Siberian pea trees and 13,000 evergreens which were used for windbreak plantings and 28,000 trees of various kinds such as green and white ash, Siberian elm, honey locust and Russian olive.

Forty-one demonstration plantings of wood lots, windbreaks and shelterbelts have been established in twenty-six different counties. Each planting consists of from 300 to 1,800 trees of the species most adapted to the locality.

Celebrate Golden Anniversary

Record of Nebraska Firm Includes Building an Extensive Business and Active Leadership in State Horticultural and National Trade Activities

Marshalls Nurseries, Arlington, Neb., one of the largest and best known firms in the industry, this year celebrate their golden anniversary. In 1887, the Marshall brothers, Chester C. and George A., began planting trees and seeds on their farms, two miles east of Arlington. Ohio had been their home, but the splendid climate and rich soil of Nebraska drew them west. There was a great need for more trees in Washington county, and to supply them was the aim of the Marshall brothers in their nursery enterprise. They organized on a partnership basis under the name of Marshall Bros. At the present time the entire midwest is their territory, but they derive the most business from Nebraska, Iowa, Kansas, Oklahoma, Colorado, Minnesota, South Dakota and Missouri.

A brother, H. W. Marshall, was added to the firm in 1890. In 1907 C. C. Marshall retired from an active part in the firm, but retained his holdings. The business was incorporated in 1916, under the name of Marshalls Nurseries. The family still owns most of the stock and still retains the general management of the firm. The officers at the present time are: President, George A. Marshall; vice-president, C. C. Marshall; secretary, Chet G. Marshall; treasurer, H. W. Marshall. These, with Vernon Marshall, a son of George A. Marshall, compose the board of directors.

The annual average of business runs from 18,000 to 20,000 orders, and they come from all states in the Union. A fine spacious building was erected in 1916, and in 1918 this was enlarged to meet the increased business demands. Today the main frost-proof warehouse, which is one and one-half to two stories high, covers a space 140x160 feet.

At the present time they have a 100-acre orchard, which contains 6,500 trees. Thirty acres were planted in 1922 and are in full bearing, and the remaining seventy acres were planted in 1925. The 1935 crop was 8,500 bushels. The orchard is composed chiefly of Jonathan, Winesap, Delicious and Grimes Golden apples.

Marshalls Nurseries have two diplomas received from the Paris exposition for apples displayed there and also a gold medal for apples in the fruit display at the Omaha (Trans-Mississippi) exposition. They have government diplomas for fruit displays at the St. Louis and Buffalo expositions. Other prizes have been won, including eight sweepstakes in nine years at the Nebraska state fair.

The company owns about 1,200 acres of land near Arlington and twenty-five acres near Omaha, where they have established a beautiful glass display house, 40x100 feet, on Eighty-fourth street and Center Street road, where labeled plants are shown for buyers' inspection. There are also on display garden furniture, garden pottery and garden supplies, such as tools, spraying materials and fertilizers.

A complete landscape department is maintained. The plans for planting trees and shrubs are made by this department. Although comparatively new, this department is much in demand, twenty to thirty per cent of all business being derived from it.

All this is an outgrowth of the small business which was established by the two Marshall brothers, each investing about \$1,000 capital, given them by their father.

Marshalls Nurseries usually employ about fifty salesmen. At the main nursery at Arlington are employed from thirty to sixty men during the various seasons. Thirty to thirty-five of these



men are trained nurserymen, employed throughout the year, and the remainder of the men are employed during the digging and shipping season only. The Omaha establishment employs from ten to twenty persons.

The experimental work of the nursery is an important part of the work. Many new varieties are tested, as high as 600 in a season. The Marshalls now have over eighty varieties of evergreens and numerous other new and rare trees and plants. The soil near Arlington seems to be well adapted for the propagation and growing of nursery stock. Marshalls Nurseries grow a complete line, among which are fruit and ornamental trees, garden fruits, shrubs, roses and perennials.

The president of the firm, George A. Marshall, is one of the outstanding authorities on horticulture in the middle west. He acted as a grower and salesman of nursery stock from 1887 until 1901. For five years he served on the executive committee of the American Association of Nurserymen and was president for one term in 1926. He also served as president of the Western Association of Nurserymen. As vice-president and later president of the Nebraska State Horticultural Society, he was active in the establishment and development of the Nebraska national forests in Thomas and Cherry counties.

H. W. Marshall, after completing a business college course, spent the earlier years of his activities as head of the office and sales force. Now, with his nephew, Maurice Marshall, he manages the company's operations at Omaha.

Chet G. Marshall has been a life-time resident of Nebraska. After completing his school work at Ar-

lington, he studied botany and horticulture at the University of Nebraska for two years. He served as president and as secretary of the Nebraska State Horticultural Society for five years and was editor of the horticultural department of the Nebraska Farmer from 1909 to 1917. For a number of years he has been interested in the development of county fairs and is at present secretary of the northeastern Nebraska county fair circuit, as well as of the Nebraska Association of Fair Managers. With Val Keyser, he organized the Central Fruit Grower's Association in 1912 and was manager of it two years. He was connected for three years with the horticultural department of the University of Nebraska and was a member of the Nebraska state park board from 1926 to 1928. After serving as a member of the executive committee, he was this year elected vice-president of the American Association of Nurserymen. He is now secretary and sales manager of the Marshalls Nurseries. He has written numerous articles on horticultural subjects published in the Nebraska State Horticultural Society reports from the years 1909 to 1920. He has served as president of the Retail Nurserymen's Association and of the Western Association of Nurserymen.

Vernon Marshall was born on the nursery and developed an early liking for nursery field work. After completing his high school work, he graduated from the school of agriculture at the University of Nebraska and completed a business college course. Then he became field manager for the company and fitted himself into all branches of nursery and orchard work. He has been president of the Nebraska State Horticultural

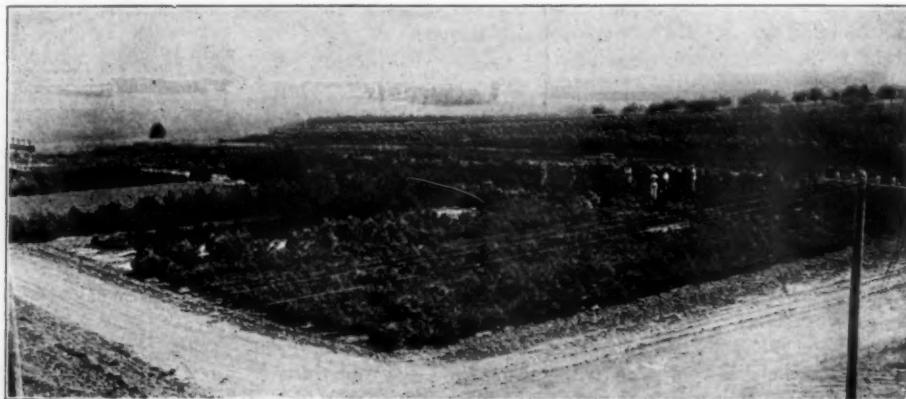
Society, of the Nebraska State Nurserymen's Association and of the Western Association of Nurserymen.

Maurice N. Marshall, youngest son of George A. Marshall, grew up on the nurseries. He was graduated from Grinnell College in 1926 and then took a year of graduate work at Iowa State College, specializing in landscape architecture. He spent a summer in Europe, visiting many of the finest landscape developments in England and on the continent. He is associated with H. W. Marshall in the management of the company's Omaha landscape organization. He was president of the Nebraska Association of Nurserymen and teaches a course in landscape design at the Omaha Municipal University.

Charles W. Andrews, who joined the organization in 1916, is at the head of the landscape department and is also assistant sales manager. His training in landscape design and the adaptability of trees and plants to western conditions has had much to do with the growth of this department.

RED LAKE CURRANT.

The currant Red Lake, introduced in 1933 by the University of Minnesota fruit breeding farm, is proving itself to be the best red currant introduced since Diploma in 1906. It has been tested in many northern states and is well worthy of trial for market as well as home use. The large berries are borne on well filled, long-stemmed clusters that are easily picked. The color is a clear light red and the quality is excellent. The bush is vigorous, upright and productive. In fruit characters Red Lake is as good as or better than Perfection and it is much superior in plant characters.



Block of Approximately 200,000 Evergreens at Marshalls Nurseries.

Native Plants of Garden Value

*Seventeenth in Series of Articles on Neglected Opportunities
for Nurserymen in Native Material — By C. W. Wood*

An examination of native plants of garden value would not be complete without mention of the evening primroses, but the task of sorting out the good ones from the large number of weeds included in the genus is not easy. With just a few exceptions, evening primroses have been much neglected in this country, the home of most of the species. The curiosity of gardeners is beginning to make itself felt, however, and we find an ever growing demand for the better kinds; so it behooves many of us who have neglected the group to make ourselves familiar with them.

One drawback to a close acquaintance is the uncertainty of names, for the polymorphous nature of the genus makes even trained botanists unsure of generic bounds. As a consequence, some have split the old genus *Oenothera* into about a dozen genera, leaving us of the old school, who were brought up on Gray's Manual, somewhat at sea. The old nomenclature is retained here for the good reason pointed out by Bailey when he said: "These genera are here treated mostly as subgenera, for the group is fairly homogeneous from the horticultural point of view, and an entirely new set of names in several strange genera could scarcely be forced on the trade, particularly since the botanists are themselves not in agreement."

Oenothera.

The genus *Oenothera* is a large one numbering perhaps 100 distinct kinds, many of which are too weedy for garden use and others are such root-spreaders that it is seldom safe to use them among more delicate plants. However, after deducting the weeds, the spreaders, the annuals and the tender ones, we still have a brilliant array of good garden material. I have grown perhaps not more than half of the known kinds, so do not offer the following list as complete. Neither does it contain a few good kinds which I have had unnamed and was unable to identify.

Of the kinds especially suited to rock garden use, perhaps *O. cespitosa* and a dwarf form of *O. missouriensis* are the best of those I have grown. The first of these, a plant from the plains states and westward, acts more or less as a biennial here, though it maintains itself abundantly if divided yearly. The crown of long leaves, sometimes as much as a foot in length, is seldom over three inches above the surface and serves as a setting for the white flowers, which turn pink with age and are as much as three inches across. *O. missouriensis*, even in foot-tall specimens, is a good rock garden ornament, but plants half that high which often appear among seedlings are even better and may be propagated from cuttings. The yellow flowers, up to five inches in diameter, are produced close to two months in late spring and early summer.

I once had an evening primrose from the southwest under name of *O. Havardii* (*O. Howardii* is a synonym, I believe) that proved to be an excellent thing. It passed out during the second winter here, leading to the supposition that it is too tender for latitude 45 degrees north, but its 2-inch yellow flowers, which later turned to red, left a favorable impression. As I recall the plant, it was not more than four inches high, not so spreading as many of the species, but with numerous stems springing from the central herbaceous trunk and the entire plant somewhat hoary. Another Texan of even more tenderness and still greater value is *O. rosea*. It has seldom withstood our winters, though it often leaves seedlings to carry on its mission of bright rose flowers from June to September. The flowers are small and of a form suggesting the fuchsia, but are produced over a long period. Floras of the southwest give its height as one to two feet, though plants here have seldom attained even the first figure.

A California species, *O. ovata*, a really worth-while plant, is not offered in this country so far as I know. It is not a plant for the north, I am afraid, for I have not been able to carry it over winter in the open, but it should be hardy south of the Ohio

river. Californians tell me the roots may be stored in the cellar like dahlia tubers, which may be a solution for northern gardeners. A single root will make a tuft of light green foliage about six inches across and will send up slender stems all summer, each bearing inch-wide flowers of deep yellow. I understand that the plant which is sometimes offered in European seed lists as *O. odorata* is being confused by gardeners in this country with the subject of this paragraph. I have neither grown nor seen *O. odorata*, but take it from an English correspondent that it is one of the numerous forms of *O. biennis*.

One of the glories of the genus for the sunny border is the well known species, *O. fruticosa*, especially in its form known as *Youngii*. The latter is a much branched, 2-foot plant with thick shiny foliage and 2-inch lemon yellow flowers from early June until late August. Another form of *fruticosa* known as *major*, or popularly as the bush sun-drops, is of like stature, making a dense bush and producing its deep yellow blooms even longer than the preceding. Anyone who has grown *O. fruticosa* from seeds must have been struck by the variation in size and shade of flowers and habit of growth which sometimes appears. No doubt a careful program of breeding would result in something really outstanding.

Of undoubtedly hardiness and of proved value is *O. brachycarpa*, a native of the plains and mountain states from Montana southward. It is good for the sunny rock garden or similar position in the border, for it grows well, like most of its kind, in a dry sandy soil and its floral display continues for a month or more in early summer. The flowers are of medium size, usually two to three inches across, and bright yellow, taking on shades of orange as they get older. The plant is seldom over five or six inches high and spreads into broad mats in congenial situations.

Day-blooming Primroses.

Some gardeners object to the habit which so many species have of open-

ing late in the evening and closing before the following day is well advanced. That is a well founded criticism in certain cases, especially where day-bloomers are needed, but it can be answered by offering the critics a few kinds which normally stay open during the day. Of these, a plant I had under name of *O. trichocalyx* was a most satisfactory performer. I do not now recall where it came from, and the floras consulted do not show its natural habitat. It is a biennial, making compact plants a foot high, which bloom over a long period. The objectionable habit of straggling growth found in so many evening primroses has nearly disappeared in this species and its flowers do not close during the day. *O. Clutei*, a western biennial, is another with the desirable trait of day blooming. It throws up 3-foot stems from a rosette of large leaves, carrying an immense number of large yellow flowers.

Included in the group of day-bloomers is one of my favorites among the evening primroses, *O. serrulata*. Few of the species, shrubby or herbaceous, can excel this shrubby form in general usefulness, for most of the good points of the group, with the exception of spectacular size of flower, are combined in this one plant. In contrast to most of the shrubby kinds, this one does not winterkill at the tips except in the most severe winters, when the tips may be frozen back. We should expect this hardiness, though, for *O. serrulata* grows naturally in the plains country as far north as Manitoba. It varies much in height, an Iowa grower reporting 2-foot specimens and a Colorado grower listing it as a 10-inch plant; the plants I have had were about fifteen inches in height. Regardless of height, though, it is an excellent plant with many inch-wide lemon yellow flowers from June to late August or September and it will bloom freely on a light diet and with little moisture. In fact, it is one of the most satisfactory plants I have ever grown if it is given the sunshine and good drainage it needs.

A few other kinds, some of which occur occasionally in lists, at least by name, though a name usually means little when applied to an evening primrose, must be mentioned briefly, because space is limited. The

plant sometimes listed as *O. Pilgrimii* is, according to material I have had, similar to *O. fruticosa Youngii*, with smaller and less showy flowers, and consequently may be replaced by the latter. The common sundrops, *O. linearis*, of eastern states, with its 2-inch, bright yellow flowers held well above the foliage on foot-high or taller plants, might well be made more of by plant growers. The plant known in Europe, and presumably in this country too, as *O. pallida*—which Bailey at one time placed tentatively with the next preceding—long interested me as a problem in taxonomy, but I am not enough of a botanist to figure out the answer to the riddle. Certainly, though, the material I have had from European seeds lacked the clear yellow of sundrops, coming rather in some shade of pink. It, too, is a good garden plant of about the same stature as sundrops. Evidently the plant known to American botanists as *O. speciosa* is not the same as the material with the same name which one sees mentioned at times in European literature, for here we know it as pure white turning pink, while Europeans speak of it as being deep pink or rose. The plant that I have in mind is a plains inhabitant from Missouri westward and southward, growing fifteen to eighteen inches high and producing an abundance of large white flowers from early summer into August. It spreads rapidly from the root and should not be placed near choice plants.

It should be remembered that most evening primroses may pass out of the picture after a season or two of heavy production. That seems to be characteristic of the genus and even the true perennial forms may do so. It is not difficult, however, to have new plants ready to take the places left vacant. Seeds of most kinds germinate quickly, although I have had some species—*O. ovata* for instance—stay in the ground for months before coming up. Most of the perennial kinds, both herbaceous and woody, may be grown from cuttings, and the spreaders are easily multiplied by division.

THE shoots of the common potato and the leaf blades of rhubarb are poisonous, but although the root of the pokeweed is poisonous, the shoots are harmless.

A. A. N. NEWS.

The printed proceedings of the sixty-second annual convention, held at Chicago last July, are now in members' hands. The volume is thicker than for several years, amounting to 326 pages, and it contains much interesting material, both for reading and reference.

Harry E. Malter, Monroe, Mich., chairman of the arrangements committee for the 1938 convention of the A. A. N., announces that the Book-Cadillac hotel has been selected as headquarters, in Detroit. Serving with him on the arrangements committee are Benjamin J. Greening, Harold P. Paul, Ralph I. Coryell and Bert J. Monahan.

President Edward L. Baker's airplane trip to the California convention received plenty of publicity. His remarks before the western gathering furnished quotations for the public press that should be helpful to nurserymen. In six weeks of office, the new president has set a record for traveling and attending trade gatherings, where his enthusiasm never fails to arouse additional interest in the national organization.

The number of new members and reinstatements is mounting rapidly week by week, and with the application for charters in the A. A. N. made by a half-dozen state and sectional organizations, the roster should grow still faster.

With more than a dozen states already at the 100 per cent mark in contribution of quotas to the Washington representative finance fund, it is expected that definite steps in this matter will be taken.

BARBERRIES TO PLANT.

Thirteen states have passed laws restricting the propagation and distribution of rust-susceptible species of barberry, four other states are actively engaged in an eradication program, and a federal quarantine regulates interstate shipment.

Fortunately, twenty-seven species of berberis and three species of mahonia have been found either immune or highly resistant to wheat rust, so that they can be grown anywhere without endangering cereal crops. Most nurserymen are restricting their growing lists to the species that are immune. These consist of *Berberis Thunbergii* and its varieties *purpurea*, *Maximo-*

wiczii, minor, pluriflora and erecta. Eleven evergreen species and ten deciduous species can be grown under restrictions.

Some of these are worthy of wider use and should be better known to the public. With that in mind, the September 10 issue of the Arnold Arboretum bulletin of popular information, of sixteen pages, is devoted to a full treatment of the subject and a description of the rust-resistant barberries, by Dr. L. M. Ames, associate pathologist of the bureau of entomology and plant quarantine of the United States Department of Agriculture, one of the most competent persons in the country to do the job.

Dr. Donald Wyman, of the Arnold Arboretum, writes: "This subject has never been treated so fully before in any practical publication; so naturally we feel that it is highly important that the gardening public become acquainted with the actual facts concerned in the use of these most important ornamental plants. Because our supply of this bulletin is somewhat limited, we regret that it is necessary to make the small charge of 25 cents for each copy of this issue. However, we shall be glad to send copies to any readers of the American Nurseryman for this price."

CONTROL OF PEACH BORER.

For trees over 4 years old, paradi-chlorobenzene is the most satisfactory control for the peach tree borer, though it should not be used on young trees. Moreover, the application is subject to certain limitations. The most important of these are the life history of the borer, weather and soil conditions. The best balance of all of these factors comes about during late summer or early autumn, depending on the latitude. Then most of the eggs are hatched, the soil temperature is above 60 degrees and the soil is workable. The soil temperature is most important, since soil temperatures below 60 degrees Fahrenheit do not permit rapid volatilization of the chemical.

In calculating dosages for peach trees, the size of the trunk, rather than the age, should be considered. However, the rule is three-fourths of an ounce for trees between 4 and 6 years old, and one to one and one-half ounce for older trees, as determined by the diameter. There are precautions which must be remem-

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bered in applying paradichlorobenzene. Peach trees are quite susceptible to overdoses of this material. Therefore, do not exceed recommended dosages, be sure to keep it from actual contact with the tree and never use it in summer.

Paradichlorobenzene is applied by forming a ring of the crushed crystals, at the proper dosage for the tree, one to two inches from it. This can be accomplished more easily if weeds, gum and grass are removed, without loosening the soil or exposing the roots to the chemical. After the formation of the ring of paradichlorobenzene, it should be covered with a few shovelfuls of soil. Paradichlorobenzene applied in this way changes into a gas, which kills the borers. On extremely heavy soils, it is best to draw the material away from the trees after about three weeks. When the mounded soil is removed, its replacement by fresh soil will forestall win-

ter injury to tissues that may have remained tender because of having been covered during the season when, with normal exposure to the air, they gradually acquire greater hardiness to cold.

THOSE nurserymen interested in fruit tree certification and variety inspection can obtain special circular No. 34 from Massachusetts State College, Amherst, the source of much of the material in the article in the September 1 issue on this work of J. K. Shaw, research professor of pomology in that institution. He recently returned from a 2800-mile trip among the nurseries in the northeast. One of his observations resulting from the trip is: "All of the nurserymen growing graft apples seem to be budding them very low. The result will be that these trees will almost invariably root out from the scion and it is a waste of money to buy them for dwarf trees."

California Convention

New Grades and Standards Law Subject of Addresses and Discussion at Annual Meeting of California Association of Nurserymen, at Oakland

One of the most important conventions of the California Association of Nurserymen for several years passed into history September 24 when James R. Crombie, retiring president of the association, turned over the gavel at the final session at the Hotel Oakland, Oakland, to Albert B. Morris, San Fernando.

Other officers chosen for the following year are Eugene F. Fowler, Newcastle, vice-president; Henry W. Kruckeberg, Los Angeles, secretary, and Jess C. Watt, Ontario, treasurer. Elected for membership on the board of control for a 2-year term are James R. Crombie, Oakland; John Van Barnveld, Puento; Richard L. Plath, San Francisco, and Clarence G. Perkins, San Jose. Remaining on the board for another year are John A. Armstrong, Ontario; Harold McFadden, Compton; H. A. Marks, Los Angeles, and Toichi Domoto, Hayward.

The convention had the pleasure and privilege of having the president of the American Association of Nurserymen, Edward L. Baker, attend the meetings and address them.

Probably the single topic of most interest to everyone attending the convention was the recently passed grades and standards law and, after full discussion by speakers and from the floor, members were better acquainted with its provisions and the benefits which will accrue to the nursery business from this regulatory measure. The association also went on record as opposing any change in the present regulations of federal quarantine 37.

Opening Session.

Opening on Wednesday morning, September 22, with President Crombie in the chair, the convention was welcomed to Oakland by W. J. McCracken, mayor of Oakland. Harry A. Marks, Los Angeles, gave the response.

In his presidential address, Mr. Crombie reviewed the legislation which was passed at the recent session of the state legislature and the bills killed which the nursery business believed would have been detrimental. He told of the healthy development of local nursery groups and reviewed the aims of the state association.

H. W. Kruckeberg, Los Angeles, secretary, hoped that the association would grow in membership, but pointed out that the members now in the state association accounted for sixty per cent of the capital investment of the nursery business in the state.

The report of the treasurer, Jess C. Watt, Ontario, was read by Harold McFadden, Compton, and showed the association a "going concern."

In his talk, "Some Problems of the Agricultural Commissioner," Gordon S. Laing, commissioner of Alameda county, asked that the nurserymen give more attention to pest control and consider investment in spray equipment a necessity. He asked that they give prompt attention to rejection slips if the sender wishes his products returned, and he

ROSE IS STILL ROSE.

By Noni C. Bailey.

Lovely California!
The fairland of flowers,
Where the moonlight filtered perfume
Of jasmine-scented bowers
Brings romance among the roses,
And the dancing daffodil—
Has got to create poetry
With a grades and standards bill.
And so, within a week—a
We will sing dimorphotheca:
And our native eschscholtzia—
That's right, our poppy-minded goatsia!
What we find a tone-controlia
And are mentally not lazy,
Brachycome iboridifolia
Will be praised instead of daisy.
We think mesembryanthemum
For terraces is nice.
But just a bit confusing
If we order it for ice.

"The lady clung," the poet writ,
"Like Ipomoea quamoclit
He gazed, the silly foolius,
Into eyes of Didiscus coruleus;
His hair was soft as acablosa
Or Celosia plumosa—"

However far this nonsense goes,
Her cheek will still be like a rose!

urged the coöperation of the nurserymen in the elimination of misleading advertising, particularly over the radio.

Reports of the standing committees for 1937 included: Citrus and tropical fruits, by F. A. Tetley, Riverside; deciduous fruits, by Eugene F. Fowler, Newcastle; insects and diseases, by Ray D. Hartman, San Jose; legislation, by Roy F. Wilcox, Montebello; native vegetation, by Theodore Payne, Los Angeles, and transportation, illustrated with small models, by W. A. Shunk, Ontario. Clarence G. Perkins, San Jose, had charge of the program and publicity for the convention.

Afternoon of Addresses.

At the Wednesday afternoon session, Abe P. Leach, president of the California spring garden show, Oakland, talked on "The Customers' Opinion of

Nurserymen." He urged the nurseries study their sales cost. He stated that nurserymen were generous of their time and believed the customers appreciate it. But he stated that customers want more alacrity on the part of the salesman, who may be working with some plants, because they do not like to wait while he goes on working. "Be little more on the job when greeting your customers," he urged.

Ray D. Hartman gave an interesting summary of the convention of the American Association of Nurserymen at Chicago, last July.

Avery H. Steinmetz, Portland, Ore., A. A. N. executive committee member, in a paper read by Paul Doty, urged coöperation with the national association because of the importance at the time of federal legislation.

In a well received address, Edward L. Baker, Fort Worth, Tex., president of the American Association of Nurserymen, talked on "What the National Association Is Doing to Improve Your Business." Mr. Baker told of the many activities of the association and the importance of the reorganization plans, with regional chapters, and the plans for a Washington representative for the industry.

The afternoon session closed with an illustrated talk by Prof. E. O. Essig, of the University of California, Berkeley, on "Some Horticultural Observations in Northern Europe."

Thursday Morning Session.

Starting off the Thursday morning session, Harry A. Marks, Los Angeles, gave a talk on "Modernizing the Nursery Industry Through the Advantages of a Live and Effective Local, State and National Trade Organization." It was proposed, and accepted later by the convention, that all members of the nursery industry in the state be automatically placed upon the membership list of the California Nurserymen's Association. Such members of the nursery business as do not wish to remain on the rolls may have their names dropped by notifying the secretary of the association. Dues will be optional, not obligatory, and will be paid voluntarily by those who wish to remain as members. This will not affect the local nursery organizations nor the national set-up.

George C. Roeding, Jr., Niles, chairman of the plant standardization committee, in the paper which followed told "Why the Grades and Standards Law Was Enacted." After the appointment of a committee last year at the annual convention, a grades and standards law was drawn up and passed at this year's session of the state legislature. There has been a recognized need for something of the kind, he stated, for many years. It is almost impossible to get the law perfect at first, but changes may be made as it seems necessary. The grades and standards law will give all a common ground, with the mini-



Albert B. Morris.

mums only set and the maximum not touched. All plants must be properly graded and labeled when sold, the labels to be written or printed.

Interpret New Law.

J. Lee Hewitt, chief of the bureau of nursery service, Sacramento, talked then on "The Interpretation of the Grades and Standards Law." He stated that there should be an educational campaign first on the provisions of the law and that members of the nursery trade should not be too precipitate either in demanding its enforcement or nullification. The board does not interpret the law, only enforces it as the members see it written, Mr. Hewitt stated. The law is constitutional, he believes, and well worth while for the industry. The board will not prosecute any nurserymen, for such action can be taken only by a purchaser. Names of plants will be accepted as shown by any recognized botanical authority.

John B. Steinweden, assistant chief of the bureau of nursery service, Sacramento, talked on "Methods of Enforcing the New Grades and Standards Law." He stated that inspectors would be appointed to cover the seven districts into which the state has been divided, and they will inspect each nursery. Summaries of the law will be given to each licensed nurseryman in the state, so that he may be provided with information on the law. The bureau will also give assistance in labeling the stock.

A. A. Brock, director of the department of agriculture, Sacramento, gave a "Message from the State Department of Agriculture." He stated that the nurserymen had had a large share in the promotion of California's agricultural and horticultural success. Any changes in the grades and standards law should be analyzed carefully, he stated, before being proposed to the legislature at a future session.

D. B. Machie, senior entomologist of the department of agriculture, Sacramento, talked on "Recent Developments of Vacuum Fumigation" and told of some of the difficulties of handling this method. He said the state, he believed, was in a better condition than ever before to control pests, with incoming, outgoing and local stock being carefully watched.

Golden Gate Exposition.

What is being done horticulturally for the Golden Gate International Exposition interests all the nursery trade, and in the absence of Julius Girod, chief of the exposition bureau of horticulture, San Francisco, Henry R. Saunders talked on "Landscaping the Golden Gate International Exposition."

In the sixteen months since the department was started, good progress has been made toward the opening of the fair on February 18, 1939. Soil which has been pumped up from the bottom of the bay has a large percentage of salt and will be washed. Not much topsoil will be used, and the officials are depending mostly on the soil as it will exist. Broad avenues at the exposition grounds will be lined with tall trees and shrubs, and courts will be of separate colors.

Reports from Other Trade Bodies.

Friday morning, Walter R. Damm, Portland, Ore., talked on "The Credit

VISIT THE TEXAS ROSE FESTIVAL

October 8, 9, 10, 1937, AT TYLER

and stop en route

AUTO ROUTES



Or by train via the Missouri Pacific-Texas & Pacific Railway to Marshall, Texas.

**to see top-notch fields of
New American-bred Roses at**

**VERHALEN NURSERY COMPANY
SCOTTSVILLE, TEXAS**

FRUIT TREE SEEDLINGS

We are large growers; send us your Want List

WASHINGTON-GROWN SEEDLINGS IN THE FOLLOWING:

APPLE - MAHALEB AND MAZZARD CHERRY - MYROBALAN PLUM
BARTLETT, SEROTINA AND USSURIENSIS PEAR

— ALSO —

KANSAS-GROWN APPLE - NATIVE PLUM - QUINCE STOCKS

COMPLETE LINE OF GENERAL NURSERY STOCK

Write for new Fall Trade List, just issued

MOUNT ARBOR NURSERIES

E. S. Welch, Pres.

Est. 1875

Shenandoah, Iowa

"One of America's Foremost Nurseries"

Plan, as Developed by the Pacific Coast Association of Nurserymen." He said that it was time to pay off indebtedness, keep the accounts up to date, keep cash on hand and watch the inventory of nursery stock. According to Roger Babson, it is predicted the dollar will be down to 20 cents in value in the next few years. Demand is good now, and selling is comparatively easy. Nurserymen may face two

kinds of inflation, the dollar and too much stock. He stated he had faith in the United States and that the government would stop spending more money than it takes in. Every business man is in the same situation. The Pacific Coast association member may take advantage of the services of the credit bureau for credit ratings or collections at a minimum cost.

Lou Johnson, secretary, gave a talk on

"Results of the Activities of the Horticultural Industries, Inc." Informative papers were presented on "The Outlook of the Nursery Industry in the State of Washington," by Charles Malmo, Seattle, president of the Pacific Coast Association of Nurserymen, and on "Present and Future Outlook of the Nursery Industry in the State of Oregon," by Earl Housewear, Woodburn, president of the Oregon Nurserymen's Association.

The convention will be held in southern California in 1938, it was decided, but the place and date will be left to the board of control.

It is hoped that plans may be perfected so that the national convention may be held in San Francisco, or the bay area, at the time of the Golden Gate International Exposition in 1939.

Pot Plant Growers Meet.

On Thursday afternoon the growers of potted plants held a separate meeting to discuss their problems under the new grades and standards law. The value of labeling plants both to florists and to the general public was shown, and it was explained that the purpose of the law was not to penalize, but to benefit. It was decided that the growers should make any suggestions they found advisable to the chief of the bureau.

Entertainment.

But business was not the only thing which concerned the nurserymen at the convention. Wednesday, a luncheon was held under the auspices of Horticultural Industries, Inc., Roy F. Wilcox, chairman. That evening Gordon S. Wallace was master of ceremonies at "A Nite of Surprises." New "rivals" to Earl Carroll's famed beauties took part in the show. A. B. Mitchell, Portland, presided at the luncheon on Thursday. The annual banquet and ball was held that evening at the Hotel Oakland, with Bennie Walker as master of ceremonies. The members were guests of the Oakland Business Men's Garden Club Friday noon, and that afternoon the annual barbecue was held at Durant park, where Jack McDonnell, chief chef, served a large group.

Under the direction of Mrs. Clarence G. Perkins, chairman; Mrs. James R. Crombie, Mrs. E. F. Fowler, Mrs. Ray D. Hartman, Mrs. George C. Roeding, Jr.; Mrs. H. J. Sandkuhle, Mrs. Carl Salbach, Mrs. Clyde F. Stocking and Mrs. Clarence C. Vaughn, a full three days' program was provided for the visiting ladies. Luncheon at the Hotel Oakland, Wednesday, was followed by a trip to the Oakland rose garden; Thursday, a tour of the bay bridges and points of interest in San Francisco preceded a tea at the home of Mrs. Carl Salbach, in Berkeley.

At a business meeting, Friday morning, Mrs. H. A. Marks was elected president of the Ladies' Auxiliary of the California Association of Nurserymen. Mrs. Roy F. Wilcox and Mrs. James R. Crombie were named vice-presidents, and Mrs. A. R. Morris was chosen secretary-treasurer.

The Central California Nurserymen's Association, of which Gordon S. Wallace is president, Carl Salbach, vice-president, and Toichi Domoto, secretary-treasurer, was host to the convention.

Reception and registration committee members included Clarence C. Vaughn, chairman; Toichi Domoto, John Edwards, Jack McDonnell, F. O. Peters, Clyde Stocking, Frank W. Tuttle, J. K. Wilson and the members of the ladies' committee.

Flower Displays.

In connection with the trade show there was an interesting collection of flowers, which visitors much enjoyed. The displays were open to the general public. From the Bungalow gardens, Colma, Mr. and Mrs. H. Werle brought in some excellent blooms. Joseph Proietti, San Leandro, exhibited the Dame Edith Helen rose. Orchids and anthuriums sent up by Armacost & Royston, Inc., were arranged by Podesta & Baldocchi. From the University of California Botanical Garden came a preview showing of new annuals from seeds supplied by Bodger Seeds, Ltd., El Monte, which included Petunia Giants of California; French Marigold Harmony; Zinnia gaillardia-flowered mixed; Nierembergia Hippomanica; Verbena hybrida grandiflora Meteor; Marigold California Double Golden Dawn; wilt-resistant California Giant aster; Marigold Crown of Gold, crested; Zinnia Crown O'Gold Desert Gold, and Marigold gigantea Sunset Giants.

The Alameda Dahlia Society had a complimentary exhibit of dahlias. The art of Japanese flower arrangement was illustrated by a table of different styles by Mrs. Chiura Obata, Berkeley. The Oakland park department showed some tuberous-rooted begonias and an exhibit from the Oakland municipal rose garden.

Members of the California Flower Market, San Francisco, had a table with flowers from various nurseries represented. Among them were: Signora roses, Sakai Bros., Berkeley; bouvardia, Korematsu Nursery, Oakland; Chrysola mums, Chrysanthemum Growers Association; Dame Edith Helen roses, Y. Oshima, Richmond; sweet peas, Okamura Nursery, Redwood City; carnations, Y. Mayeda, Richmond; pompon chrysanthemums, Kiwata & Tanaka, Redwood City; zinnias, Oku Nursery, Mountain View; carnations, T. Yone moto Nursery, Sunnyvale; pompon chrysanthemums, Enomoto & Co., San Francisco; sweet peas, Okamura's, Redwood City.

Jackson & Perkins Co., San Jose, showed the new Rose Rome Glory, a cross between Dame Edith Helen and Sensation. A patent has been applied for on this rose, which was bred with the idea of raising a red Dame Edith Helen. Flowers are similar in size and shape, with long, strong stems, and hold their color without bluing. Other varieties displayed were the popular Eclipse, which was put out two years ago; Signora, an orange which is excellent for both florists' and outdoor use; Jean Cote, patent applied for, which has a bud of deep brownish orange, with large bloom, full to the center, glossy foliage and a fruity fragrance.

Trade Exhibits.

Exhibitors at the trade show included: Anchor Post Fence Co., Oakland, fencing; Armstrong Nurseries, Ontario, nursery stock; Balfour, Butchrie & Co., San Francisco, Nicona spray materials; J. A. Barfoot & Co., Los Angeles,



Members and Guests at Annual Convention of Nurserymen, at Oakland, September 22 to 24.

Rotenone spray insecticide; J. A. Bauer Pottery Co., Los Angeles, garden and florists' pottery; John Bean Mfg. Co., San Jose, hand and power sprayers and dusters; Berkeley Horticultural Nursery, Berkeley, fuchsias; California Nursery Co., Niles, nursery stock; California Pest Control Co., San Francisco, insecticides; California Redwood Association, San Francisco, redwood Picket Pak fence; California Spray-Chemical Corp., Richmond, agricultural, garden and shade tree pest control; H. V. Carter Co., Inc., San Francisco, farm, garden and golf equipment; Leonard Coates Nurseries, San Jose, nursery stock; Mrs. A. H. Darbee, San Francisco, Oregon bulbs; Doty & Doerner Co., Inc., Portland, Ore., espalier fruit trees; Grange Co., Modesto, Serval; Hayes Universal Spray Gun Co., Berkeley, spray guns; H. B. Hudson Mfg. Co., San Francisco, sprayers and garden tools; H. A. Hyde, Watsonville, bay trees; Ironcraft, Inc., San Jose, barbecue equipment; Jackson & Perkins Co., San Jose, field-grown roses; Key Route Fuel & Feed Co., Oakland, everything for the garden; W. P. Lass Co., Inc., Santa Cruz, Fibrelite flower pots and bulb bowls; F. F. Lindstaedt, Oakland, Nicona and Mil-Du-Spra and Nicona sprayers.

Also in the group were P. V. Matraia, San Francisco, decorative plants and palms; McCormick Sales Co., San Francisco, Red Arrow spray; Maxwell Hardware Co., Oakland and Berkeley, garden tools and equipment; Merritt's Gladiolus Gardens, Oakland, "Bulbs of Merritt"; Wilson & George Meyer & Co., San Francisco, peat moss and agricultural and industrial chemicals; Nicotine Products Corp, Clarksville, Tenn., NPC brand nicotine; Pacific Guano Co., Berkeley, Gaviota and Taps; Peat Import Corp., Los Angeles, PIC quality peat moss; Premier Co., Los Angeles, nursery plant tags and catalogue printing; Roberts Co., Burlingame, insecticides, ant and general pest and termite control; Rototiller Tractor Sales & Service Co., San Leandro, Rototiller tractors; Sherwin-Williams Co., Oakland, nursery, garden and greenhouse sprays; Swift & Co., South San Francisco, Vigoro; Tobacco By-Products & Chemical Corp., San Francisco, Black Leaf 40; U. S. Espalier Nursery, Portland, Ore., espalier fruit trees; Roy F. Wilcox & Co., Montebello, decorative plants and palms.

NEW YORK LANDSCAPE JOB.

The contract for the landscape development of trees, shrubs and lawns on the east side of Riverside drive, between Ninety-first and One Hundred Nineteenth streets, New York city, has been awarded to Outpost Nurseries, Inc., Ridgefield, Conn.

This contract involves the planting of approximately 25,000 trees and shrubs, and the development and planting of nearly one and one-half miles of lawns and park areas. Many large white-flowering hawthorns will be used throughout the planting; also thousands of roses, honeysuckles, viburnums and wisterias. The trees being planted are ginkgo, honey locust, European linden, American elm and oriental plane.

This work was started last week, and Outpost Nurseries, Inc., estimates that the entire contract will be completed in eight weeks. The project is part of the complete landscape development of

1887 1937 OUR GOLDEN ANNIVERSARY

We offer for Fall 1937 and Spring 1938 our usual line of
HARDY DECIDUOUS FLOWERING SHRUBS
HEDGE PLANTS, EVERGREENS
FOREST AND SHADE TREES **VINES AND CREEPERS**
FOREST TREE SEEDLINGS for soil-erosion control and reforestation
NATIVE PLANTS for parks and roadside plantings
 in both nursery-grown and collected stock
NATIVE FERNS, NATIVE EVERGREENS, HEMLOCK,
AMERICAN HOLLY
KALMIA LATIFOLIA (Mountain Laurel) and **RHODODENDRON**
MAXIMUM in lining-out and finished stock
CALIFORNIA PRIVET, 1 and 2-year, all grades
 Carload lots or less at bargain prices
PRIVET AMOOR RIVER SOUTH in large quantities
PRIVET AMOOR RIVER NORTH and **IBOTA** in fair quantities
 Special prices for immediate delivery on Native Shrub, Tree and Vine seeds. Ask for special seed list if interested.

PEACH SEED

We have a surplus of a few hundred bushels of Tennessee Natural Small Seedling Peach seed, also 200 bushels of the large or budded seed that will germinate 90 to 95 per cent at the following prices:

Peach Seedling or Natural Small Seed	
1 to 9 bus.	\$3.60 per bu.
10 to 24 bus.	3.40 per bu.
25 to 49 bus.	3.20 per bu.
50 bus. and up.	3.00 per bu.

Large or Budded Seed	
1 to 9 bus.	\$1.80 per bu.
10 to 24 bus.	1.60 per bu.
25 to 49 bus.	1.40 per bu.
50 bus. and up.	1.20 per bu.

All seed of 1937 crop. Can make immediate shipment.

Samples on request.

Terms: 15% discount for cash with order. Thirty days net to those who have established credit with us.

If you have a surplus of tree, shrub or vine seeds, hardwood cuttings or lining-out stock, send us your list and we will try to trade with you.

Write for Fall Trade List now ready.

Send want list for special quotations and send us your surplus list.

Nothing sold at retail

Established 1887 **FOREST NURSERY CO., INC.** *J. R. Boyd
By J. H. H. Boyd President*
McMINNVILLE, TENN.

WHOLESALE GROWERS

of a complete line of Nursery Stock
including Fruit Tree Seedlings.

Lake's Shenandoah Nurseries
Shenandoah, Ia.

Riverside drive—where an express motor highway is being constructed over the New York Central tracks—which was started a little over a year ago at Seventy-second street and is to continue north to Dyckman street, where it will connect with the Henry Hudson parkway near the city line. When completed, early in 1938, it is expected that Riverside drive will be one of the most beautifully landscaped sections in metropolitan New York's park system.

Other park landscaping jobs which Outpost Nurseries, Inc., has executed for the city of New York have included the conservatory gardens at One Hundred Fifth street and Fifth avenue, Bryant park, parts of the Henry Hudson parkway and parts of the Horace Harding

VASE ELM

	Per 100	Per 1000
500 1 1/2 to 2 -in.	\$125.00	\$1100.00
2000 2 to 2 1/2-in.	175.00	1500.00
1300 2 1/2 to 3-in.	200.00	1750.00
500 3 to 3 1/2-in.	275.00	

MOLINE ELM

200 1 1/2 to 2 -in.	125.00	...
500 2 to 2 1/2-in.	175.00	...
500 2 1/2 to 3-in.	200.00	...
500 3 to 3 1/2-in.	275.00	...

SCHWEDLER MAPLE

800 2 1/2 to 2 3/4-in.	275.00	...
250 3 to 3 1/2-in.	350.00	...

AMERICAN ELM

5 to 10-in. diameter. Prices on application.

GOLF NURSERY

Shermer Rd. Northbrook, Ill.

boulevard toward the world's fair grounds.

A NEW GMC truck has been purchased by Leonard Coates Nurseries, Inc., San Jose, Cal.

Trade Meetings

MAIL ORDER GROUP AT CHICAGO.

Costs and Prices Discussed.

Discussions of costs and prices occupied the interest of about twenty-five members of the National Mail Order Nurserymen's Association at their fall meeting in Chicago September 21. All agreed that mounting labor expense and increasing taxes, federal and state, were seriously reducing profit margins based on present selling levels. Some movement upward in catalogue prices was therefore considered essential in most lines, particularly in perennials. Inasmuch as the cost of handling small orders was believed to be a frequent cause of loss, the suggestion was offered to increase the cost of single plants and three plants, leaving the hundred rate undisturbed, to stimulate larger orders.

Also suggested to guard profit margins was regular checking of mailing lists, to reduce the number of nonpaying catalogues sent out. The consensus was that it was good business to discontinue sending a catalogue to a customer or inquirer after two years if he made no purchases in that period. In this way a list will not grow so rapidly and the ratio of orders to number of catalogues mailed is improved.

Another idea expressed was that it might be worth while to exchange names of individuals who persistently make complaints; several felt that there are buyers who make a practice of seeking replacements, often from different sources, in an endeavor to obtain planting requirements without paying the full prices asked for the stock.

A vase of Gaillardia Sun God Improved, chamois-yellow, was shown at the meeting by J. J. Grullemans, of the Wayside Gardens Co., Mentor, O. This variety, considered especially good for cut flower growing, is declared a free bloomer and highly drought-resistant. It will be introduced by the firm in 1938.

Among those present at the meeting besides the presiding officer, Elden H. Burgess, Galesburg, Mich., were the following: H. S. Chard and M. C. Gould, of the Storrs & Harrison Co., Painesville, O.; J. J. Grullemans, Mentor, O.; J. B. Shriver, of the Earl E. May Seed Co., Shenandoah, Ia., C. A. Stahelin, Mr. Rokely, G. W. Baldwin and R. A. Ackerman, Bridgman, Mich.; Ralph Emlong, Stevensville, Mich.; B. W. Keith and William Westhauser, Sawyer, Mich.; J. R. Condon, Rockford, Ill.; Vernon H. Krider, Middlebury, Ind.; S. W. Pike, St. Charles, Ill.; O. O. Dunham, Baroda, Mich.; C. H. Andrews, Faribault, Minn., and A. L. Bradley, Carbondale, Ill.

GEORGIA NURSERYMEN UNITE.

Fourteen representative nurserymen of Georgia met in Atlanta September 23 and under the chairmanship of James G. Baile, of the Fruitland Nurseries, Augusta, formed an organization to be known as the Georgia State Nurserymen's Association. Officers elected were: President, W. L. Monroe, of the Monroe Landscape & Nursery Co., Atlanta, and

secretary-treasurer, H. T. Conner, of the Macon Nurseries, Macon. Much enthusiasm was shown.

Application will be made to the American Association of Nurserymen for a charter under which the state organization will function. The nurserymen of Georgia realize that close co-operation is vital to their interests and the organizing of a state association will certainly prove beneficial to them.

Charles M. Smith.

NORTH JERSEY MEETING.

The North Jersey Metropolitan Nurserymen's Association spent three days in the month of August visiting the places of business of its membership. It has been the practice of the association each summer since we organized. One thing noted in the visits this year is the hope shown and the increased business displayed over that at the time of our previous visits. These annual visits have really benefited the members by their learning where certain materials can be secured in their own association.

Our autumn season started off with our regular monthly meeting on the second Thursday, September 9, at the Hackensack courthouse. Mr. Budd presented the members with an opportunity to buy blotters co-operatively at a great saving, to send out to their clients advertising their business.

C. R. Jacobus offered to supply some milk-fed turkeys that he had raised for our annual ladies' night this year.

The secretary was instructed to find out from the members their needs in peat moss and also to obtain bids from dealers for same. This association has a fund set up to buy such supplies for its members so that they may enjoy better prices and cash discounts.

Considerable discussion was had on joining the A. A. N. as a unit. This was finally left for further discussion.

R. Stone, our Bergen county agricultural agent, promised to have a demonstrator to show the nurserymen some new Christmas decorations of table centerpieces to add to their Christmas trade.

William Hallicy, Sec'y.

GARDENERS' COURSE.

The Boston branch of the National Association of Gardeners and the Massachusetts Horticultural Society are co-operating to present a science course for gardeners at Horticultural hall, Boston, on Monday evenings from October 11 to November 29 inclusive. A fee of \$4 is charged for the eight lectures. Three will be given by Seth L. Kelsey, on desirable ornamental trees, deciduous and evergreen, from the point of view of their landscape value and usefulness in various types of plantings. One evening, Dr. Hugh M. Raup will discuss ecological factors which influence the growth and health of shade trees. William A. Franke will spend two evenings discussing the mechanics of transplanting, pruning and general maintenance of shade trees. Prof. W. D. Whitcomb will deliver one lecture on shade tree insects and their control, and C. J. Gilcutt will deliver the final lecture on shade tree diseases.

VIRGINIA PROCEEDINGS.

Members of the Virginia Nurserymen's Association will get good value for their annual fee of \$5 because, in addition to sending out a 21-page mimeographed report of the proceedings of the annual meeting, quarterly newsletters will be issued by the secretary, G. T. French, Richmond, Va., in co-operation with A. G. Smith, Jr., associate professor of horticulture at Virginia Polytechnic Institute.

LISTING liabilities of \$23,777, partly contingent on mortgage bonds, and no assets, Anthon S. Petersen, 267 Eastchester road, New Rochelle, N. Y., has filed a voluntary petition in bankruptcy.

Rosebushes

DESERT CLIMATE GROWN

Cecile Brunner	Golden Salmon
Gloria Mundt	Ideal
Mme. N. Levavasseur	
American Beauty	Margaret McGredy
Calocedra	McGredy's Scarlet
Condesa de Sastago	Mme. Edward Herriot
Dame Edith Helen	Mrs. Henry Bowles
Editor McFurland	Mrs. Pierre S. du Pont
E. G. Hill	Pres. Herbert Hoover
Etoile de Hollande	Radiance
Gruss an Teplitz	Radiance, red
Hadley	Sœur Therese
Hoosier Beauty	Souv. Claudius Pernet
Joanna Hill	Sunkist
K. A. Victoria	Talisman
Killarney	Willowmere
Los Angeles	and many others

HOWARD ROSE CO.
Hemet, California



JACKSON & PERKINS COMPANY

Wholesale Nurseries
NEWARK, NEW YORK STATE

Oregon-grown ROSEBUSHES

*Send
for
List*

PETERSON & DERING, Inc.
Wholesale Rose Growers
SCAPPOOSE, OREGON

New Rose TEXAS CENTENNIAL

(Red Hoover)

Plant Patent No. 162

Ask for color illustration
and prices.

Also for our general list
of roses.

DIXIE ROSE NURSERY
Tyler, Texas

ROSES

Hardy, 2-year, field-grown bud-
ded stock. Finest stock ever
grown. Write for List.

Lang Rose Nurseries
Box 702-A Tyler, Texas

SMALL FRUIT PLANTS

Evergreens — Shrubs
Lining-out Stock

Send for Complete Trade List

SCARFF'S NURSERIES
New Carlisle, O.

LATHAM RASPBERRIES
CHINESE ELM Hardy Strain
Northern Apple Seedlings

ANDREWS NURSERY
FARIBAULT, MINN.

Wholesale Growers of
Grapevines, Currants,
Gooseberries, Blackberries
and Raspberries

Let us quote on your requirements
FOSTER NURSERY COMPANY, INC.
69 Orchard St. Fredonia, N. Y.

Wholesale Growers of
SMALL FRUIT PLANTS

Leading varieties of Grapes, Asparagus,
Rhubarb, Currants, Berry Plants.
Fall price list now ready.

Krieger's Wholesale Nursery
Bridgman, Michigan

TYLER'S TEXAS ROSE FESTIVAL

Three New Features This Year.

Three new attractions have been added this year to the program of the Texas rose festival, which will be held at Tyler, Tex., October 8 to 10 for the fifth successive year. A competitive rose show, daily pilgrimages to Tyler gardens and national rose Sunday are the new features of the 1937 fiesta.

Friday, October 8, will be known as garden club day, and the five local garden clubs will be the official hosts. At 9 a. m. the rose show will be judged and awards made for the best roses, the most attractive cut rose blooms and the rose that is the most popular with visitors. Several loving cups and prizes will be given. The rose show is under the supervision of the eastern Texas nurserymen, who will display some 300 varieties of roses in a garden setting.

Social events of the first day include a luncheon, at which a prominent speaker will talk on some phase of rose culture; the queen's tea and reception, a courtesy she tenders visiting duchesses from Texas cities and princesses from other states, and the annual queen's ball that night. The 1937 queen will be crowned amid elaborate ceremonies prior to the ball, the coronation taking place at the Bergfeld park amphitheater.

The mammoth floral parade and the intercollegiate football game between Texas A. and M. College and Mississippi State College will be a feature of the second day's program. About fifty rose-decorated floats and twenty-five visiting bands will be entered in the parade that morning. In the evening a college dance will honor the two visiting football teams.

Rose Sunday.

National rose Sunday, introduced this year, will be patterned after the famous tulip Sunday of Holland. Special services will commemorate the rose, and east Texans and visitors will be urged to send bouquets of roses to distant friends and relatives. There will be a vesper service at 4 p. m. in the amphitheater in Bergfeld park, with Dr. Charles C. Seeleman, of the Southern Methodist University, Dallas, Tex., as the principal speaker. The Tyler symphony orchestra will give a concert in the evening.

Daily tours to the east Texas rose fields, where it is said one-third of the world's supply of rose plants are produced, will be open to visitors. These tours cover the larger of the 200 nurseries in the vicinity. Daily garden pilgrimages will be continuous during the 3-day fete. New landscaping effects with roses will be shown in these gardens. W. A. Pounds is president of the festival for this year, with John Womble secretary and manager.

AFTER a three months' tour of Europe, Mr. and Mrs. J. B. Baker have returned to their home at Fort Worth, Tex. Mr. Baker, one of the founders of Baker Bros. Nurseries and father of the A. A. N. president, Edward L. Baker, reported many interesting experiences on Mediterranean shores, in the Holy Land and in France, England and Scandinavia.

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Mahonia Aquifolium Seedlings

3 to 10 ins. (row run) \$15.00 per 1000

European Mountain Ash Seedlings

(Sorbus Aucuparia)	
6 to 12 ins.	\$10.00 per 1000
12 to 18 ins.	15.00 per 1000
18 to 24 ins.	20.00 per 1000
24 to 30 ins.	25.00 per 1000
36 to 48 ins.	50.00 per 1000
500 at 1000 rate	

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Mount Vernon, Wash.

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Largest Fruit Tree Seedling Growers
In America.

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Quality stock. References on request.
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We furnish packing out service
for nurserymen and seedsmen.
Write for wholesale price list.

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Salisbury, Maryland

Answers to Inquiries

BARK ON TREES CRACKS.

We have a customer who has several maple trees about three and four inches in diameter. The bark on the south side of the trees has cracked and is loosening up. On some of them the bark is loose halfway around, and the cracks are from two to three feet long. The customer is afraid that the trees are going to die and has asked me to take care of them. Can you advise me what would be the most satisfactory way to do this?

H. C. G.—Wis.

The trouble with the maple trees undoubtedly is due to frost. My suggestion on this would be to cut away any loose bark and paint the wounds with a good tree paint. Further than this, I would wrap the trunks with crêpe paper. This is now on the market in the form of two layers cemented together with asphalt. In severe cases it may be possible to tack down the bark with roofing nails. I have seen this done in one or two cases and it has worked satisfactorily. Ordinarily this is not necessary or hardly advisable.

L. C. Chadwick.

PROPAGATING DAPHNE CNEORUM.

Will you give me whatever information you have upon the propagation of Daphne Cneorum? E. N.—Del.

Cuttings can be taken the first week in August and inserted in a frame in sand, over which a layer of peat is spread. Give no air for ten days; then gradually give air until, at the end of six weeks, the cuttings are rooted. A Cincinnati grower recommends taking the blooming shoots in spring or fall just before the flowers open, pinching out the flowers and rooting the shoot.

Another popular method is to layer the branches in spring, making an incision in the underpart of the stem. Have the cut part at least two inches under the soil; secure with wooden pegs; press the soil firmly over the branch, and cover with sphagnum to insure moisture. Leave until the following spring before severing from the parent plant.

Still another method is to remove the soil from about the plants in spring to about two or three inches in depth and fill with good compost to within two inches of the tops of the shoots. The next spring wash away the compost and pot the small white buds in pots of fine soil, which should then be placed in frames.

WHEN HARDY MUMS BLOOM.

I have the following varieties of hardy chrysanthemums for trial this year and should like to know which are early and which late and the approximate natural times of blooming: Jean Treadway, Jean Cumming, Ruth Cumming, Salmon Profusion, Frances Whittlesey, Mercury and Ceres.

F. C. W.—Alta.

Obviously you realize that the bloom dates of hardy chrysanthemums vary with the latitude and also with

the season, some years there being as much as two weeks' difference earlier or later than normal. All of the varieties mentioned, with the exception of Salmon Profusion, about which the writer has no data, are originations of Bristol Nurseries, Inc., Bristol, Conn.

The blooming times given by the Bristol firm are as follows: Jean Treadway, in full flower September 30; Jean Cumming, commences to flower September 15; Ruth Cumming, in flower October 10; Frances Whittlesey, commences to bloom in late September and profusely through October, notwithstanding cold well; Mercury, flowers September 30, and Ceres, October 10.

In the vicinity of Chicago and other parts of the interior, chrysanthemums do not bloom so early as they do along the eastern seaboard and particularly in New England, where cooler nights apparently arrive earlier in the fall and induce earlier flowering.

AUBRIETIAS EASY TO GROW.

Can you advise me as to the best time to sow aubrieta seeds? I should also like some details regarding transplanting and handling stock for sale. I find the plants difficult to transplant; per-

haps it should be done in early spring. Aubrietas appeals to me as a spring plant and should be more commonly used in rock gardens. A. U. D.—Mass.

Aubrietas are among the easiest of plants to grow from seeds and should give no trouble at any time of the year, providing the operator has a soil that is not too heavy. They are rather difficult to handle on heavy clay and, for this reason, most growers who have to operate that kind of soil grow aubrietias on raised sand beds. If drainage is perfect and transplanting is done when the soil is moist, there should be practically no losses.

The writer has two preferred times to sow seeds, depending upon whether the plants are to be sold as yearlings or 2-year-old stock. For the former, seeds are sown indoors in March, transplanting the stock about four inches apart in frames as soon as it is large enough to handle. The plants remain in these frames until selling time in autumn, when they should have a spread of four or five inches. If the plants are to be held two years, seeds are sown during the latter part of June and the plants are handled as before, except that they are spaced about two inches apart in frames and are put in the field just as soon as fall rains start, which is usually about the middle of August in northern Michigan. It is suspected that losses

SHADE TREES

		Per 10	Per 100
Ash, American White	10 to 12 ft.	\$6.50	\$60.00
Ash, American White	2 to 2 1/2-in. caliper	14.00	125.00
Catalpa Bungei	5 to 6 ft.	7.50	65.00
Elm American	10 to 12 ft.	7.50	65.00
Elm American	1 1/2 to 2-in. caliper	9.00	80.00
Elm American	2 to 2 1/2-in. caliper	12.50	115.00
Elm American	2 1/2 to 3-in. caliper	20.00	175.00
Elm Chinese (Write for quotations)			
Japanese Cherry	2 to 4 ft.	7.50	65.00
Japanese Cherry	4 to 5 ft.	8.50	75.00
Japanese Cherry	5 to 6 ft.	11.50	100.00
Japanese Weeping Cherry	5 to 6 ft. 2-year.	13.50	125.00
Maple Norway	8 to 10 ft.	7.50	65.00
Maple Norway	10 to 12 ft.	9.00	80.00
Maple Norway	1 1/2 to 2-in. caliper	12.50	110.00
Maple Norway	2 to 2 1/2-in. caliper	18.00	165.00
Maple Norway	2 1/2 to 3-in. caliper	23.50	200.00
Oak Pin	1 1/2 to 2-in. caliper	16.00	150.00
Oak Pin	2 to 2 1/2-in. caliper	24.50	225.00
Poplar Lombardy	5 to 6 ft.	2.00	15.00
Poplar Lombardy	6 to 8 ft.	2.50	20.00
Poplar Lombardy	8 to 10 ft.	3.00	25.00
Poplar Lombardy	10 to 12 ft.	4.00	35.00

Write for quotations on other varieties and sizes.

WAYNESBORO NURSERIES, INC.
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DANADA NURSERY

Complete assortment of hardy EVERGREENS and SHADE TREES

SURPLUS

5000 American Elms, 1 to 4-inch

5000 Moline Elms, 2 to 4-inch

3000 Chinese Elms, 2 to 5-inch

Specimens three times transplanted — excellent condition

Location—

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Address—

Box 527, Wheaton, Ill.

LINING-OUT STOCK

Complete list of deciduous lining-out stock this year.

Place your order now for either Fall or Spring shipment, and avoid disappointment when wanted.

THOMAS B. MEEHAN CO.
Dresher, Pa.

PEACH TREES

Thrifty June-budded Stock

We offer to the trade an up-to-date list of the leading varieties to select from. All of these trees are grown on our farms in Maryland. They have shaped up nicely and have a well balanced fibrous root system—the kind of stock that will please you and your customers.

We invite your inquiry and offer special prices on early fall bookings.

E. W. Townsend Sons Nurseries
Wholesale Dept.
Salisbury, Maryland

PEACH AND MAZZARD CHERRY SEED

Native Peach Pits, new crop, \$4.00 per bu.

Native Mazzard Cherry Seed, testing 90 per cent and better germination, 35c per lb.

Waynesboro Nurseries, Inc.
Waynesboro, Va.

Peach Seed and Peach Trees

Write for prices. Large acreage of nursery stock. Will appreciate your want list.

SOUTHERN NURSERY CO.
Winchester, Tenn.

PEACH SEED

Ozark seedlings, \$2.00 per bu.

CLEVER-AURORA NURSERY
Aurora, Mo.

PEACH PITS

Our Pits Compare Favorably
With the Best

HOGANSVILLE NURSERIES
HOGANSVILLE, GEORGIA

PEACH PITS

THE
Howard-
Hickory
Company
Hickory, N. C.

in transplanting come from putting seedlings in the field before the hot dry days of July and August.

It should be mentioned, however, that aubrietias grown from the general run of seed stocks cannot hope to compete with vegetatively reproduced plants of named varieties, such as Carnival, Crimson King, Moerheimii and Vindictive. The best strain of seeds the writer has found is Hurst's Monarch, but no doubt there are others equally good on the market that he has missed.

To secure a good stock of cuttings, shear the plants as soon as the flowering period passes. Take the new growths with a heel as soon as they are large enough to handle and root them in an indoor propagating frame or a shaded outdoor frame. The rooted cuttings are handled like seedlings, growing them along in frames until fall rains start and perhaps until the following spring if the root systems they have made are not heavy enough to stand fall handling.

In regions of heavy snows no protecting coverings will be needed during the winter. Where a mantle of snow cannot be depended upon every winter, plants in wind-swept places in the field should have a few evergreen boughs placed over them to catch and hold the snow that does come. Any mulching material that is apt to mat down on the foliage is to be avoided, for it is sure to cause heavy losses. C. W. W.

SUN HEAT KILLS TREES.

Some important data of especial interest to nurserymen will be released shortly by the lake state forest service experiment station, with headquarters at University Farm, St. Paul. Starting perhaps to some in the statement that heat and not lack of moisture is responsible for the death of many young trees, particularly conifers.

During the summer of 1936 the forest service experiment station conducted a survey of plantations of young jack pine and Norway pine in the Huron National forest. Seventy-four per cent of the jack pine seedlings 2½ years old died from the heat, while twenty-six per cent died from lack of moisture. Among Norway pines 7 years old, heat killed fifty-eight per cent, with forty-one per cent dead from lack of moisture.

Records kept during the study show there is a great concentration of heat just at the surface of the soil during extremely hot weather. On one day a surface temperature of 175 degrees was registered, while during one period of eight and one-half hours a temperature of 130 degrees was maintained.

Lake state foresters state it is not surprising that young trees should die of heat rather than lack of moisture. Heat injury is common on seedlings one-half inch or less in diameter and is shown by a discolored ring of cooked cambium, or bark, just above the ground line. On larger seedlings and saplings, lesions, or scars, on the southwestern side of the trees plainly indicate the injury arising from the heat. In a few cases trees girdled by heat injury had dead tops but living roots, definitely indicating that death had not resulted from lack of moisture. This study would seem to indicate that a summer mulch of some kind would be desirable, if not necessary, for plantings of young stock of most kinds.

We have the following stock in surplus to offer for fall or spring shipment. All stock as offered is twice transplanted and A-No. 1 in all respects.

Soft Maple, 1½ to 3½-in.
Pyramidal Silver Maple, 1½-in.
Skinner's Cutleaf Maple, 1 to 1½-in.

Wier's Cutleaf Maple, 1½ to 4½-in.

Norway Maple, 1½ to 4-in.
Schwedler Maple, 1½ to 3½-in.
Fraxinus excelsior, 1½ to 2-in.
Kentucky Coffee Tree, 5 to 7-ft.
Malus in variety, 4 to 5-ft. to 1½ to 2-in.

Ironwood, 1½ to 1¾-in.
Populus alba, 1½ to 2-in.
Prunus americana, 3 to 4-ft. to 6 to 7-ft.
Syringa japonica, 4 to 5-ft. to 8 to 10-ft.

American Linden, 2 to 4-in.
American Elm, 1½-in. to 3 to 4-in.
Klehm's Elm, 1¼-in. to 2½-in.
Moline Elm, 1¼-in. to 4-in.

Norway Spruce, 4 to 5-ft. to 7 to 8-ft.

Pinus Mugho (sheared specimen), 2-ft. to 3½-ft.

Douglas Fir, 3 to 4-ft. to 7 to 8-ft.
Pyramidal Arbor-vitæ, 4 to 5-ft. to 7 to 8-ft.

Siberian Arbor-vitæ specimen, 3 to 4-ft.

Prices on application.

Also have a well assorted line of all deciduous shrubs and an especially fine collection of perennials and Rock Garden Plants.

Our fall LINING-OUT STOCK list is ready now.

Write for your copy today.

Naperville Nurseries, Inc.

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JEWELL Wholesale

Hardy Minnesota-grown
Nursery Stock and Liners

THE JEWELL NURSERY CO.
POUCH N
Lake City, Minnesota

LINING-OUT STOCK

Evergreen Seedlings, Transplants,
Maples, Nut and Apple Trees.

Write for fall price list.

Special reduced prices.

MATHEWS EGGERT NURSERY
North Muskegon, Michigan

HOOD NURSERIES

We offer for Fall 1937 and Spring 1938 complete line of Evergreens, Pink Flowering Dogwood, Azaleas, Deciduous Magnolias, Shrubbery, Shade Trees, Fruit Trees, etc.

Send us your list for quotations.

W. T. HOOD & CO., Inc., Richmond, Va.

New Books and Bulletins

PORTRAITS OF DOGWOOD.

His love of native trees has led that well known nurseryman, Adolf Müller, Norristown, Pa., to enshrine the white-flowering dogwood, *Cornus florida*, in a booklet of twenty-four pages, which will be valued by nurserymen for its thirteen colored plates, extremely handsome illustrations, as well as the accompanying text, written most interestingly. No native tree is more distinctly American, he says, though the name dogwood originated in England, where it was given to a type of *cornus* that grows in bushy form along streams and at the edges of woodlands, from the bark of which was prepared a lotion or wash applied to dogs suffering from mange.

The dogwoods in Valley Forge park, in Montgomery county, Pa., attracted no fewer than 623,000 persons in the month of May, 1937. The Montgomery County Dogwood Association in the past two years has had its efforts rewarded by the planting of over 100,000 dogwood trees. Bucks county, Pa., also has an active dogwood association. Dogwood planting week has been celebrated in the past two years in the Shenandoah valley stretching through Virginia and Tennessee.

With this increased popular favor, the dogwood well merits the tribute given by Mr. Müller. It will thrive, of course, in a much wider area than that indicated by the geographical references above. *Cornus florida* is found from the Atlantic coast to the Mississippi river valley and from the Gulf of Mexico to Canada. A few distinct varieties are found on the Pacific coast. The pink-flowering dogwoods have come from a branch of a white-flowering tree which sported pink, about fifty-five years ago, in the hills that are now a part of Fairmount park, Philadelphia; it was discovered by the late Thomas F. Meehan, who cut off the branch and took it to his nurseries, whence have come its numerous progeny. A few other varieties are the subject of brief notes by Mr. Müller.

From photographs made in and around Valley Forge park have been made the handsome reproductions in the book, printed by the J. H. McFarland Co. for the author, who prices copies of the booklet at \$1 each to defray his expense.

BRITISH PUBLICATIONS.

"Crop Production in Frames," bulletin No. 65 of the Ministry of Agriculture and Fisheries of the British government, uses twenty-nine pages for a historical introduction and descriptions of types, construction and uses of frames and cloches. The remainder of the 74-page pamphlet describes cultural practice for the crops usually grown in England.

"Pests of Ornamental Garden Plants" is the title of bulletin No. 97, published by the Ministry of Agriculture and Fisheries of the British government, and as the title indicates the text is devoted to the problems of the private gardener. There are thirty-six pages of photographic plates in addition to the numerous illustrations contained in the 128 pages of text which are filled with descriptions, life histories and control measures.

"Cider Apple Production," bulletin No. 104 of the Ministry of Agriculture and Fisheries of the British government, seventy-six pages, reveals a phase of apple production far different from that practiced in the United States. Here cider is a by-product made of apples culled from the more salable grades, but in England cider apples are produced primarily for cider and the cultural practice calls for high-headed trees and permanent sod in contrast to the usual American system of head and cultivation.

"Manuring of Fruit Crops," bulletin No. 107 of the Ministry of Agriculture and Fisheries of the British government, contains in its forty-eight pages the results of several interesting experiments and comparisons of growth secured through the use of various fertilizers in different soils. While many of the conditions are not applicable to the United States, the illustrations show such wide divergences as the result of the use of different constituents as to emphasize the teachings of our own experiment stations.

Any of the foregoing bulletins may be secured through the British Library of Information, New York.

BULLETINS RECEIVED.

Inasmuch as root-knot is probably the worst single plant pest found in the southern states, especially affecting

plants in sandy soil which have been in cultivation for a few years, bulletin 311, dated July, 1937, from the Florida agricultural experiment station, Gainesville, entitled "Control of Root-Knot in Florida," by J. R. Watson and C. C. Goff, will be of wide interest. In twenty pages it covers briefly the conditions of growth, distribution, methods of spread and host plants, while control methods are described fully. Peaches and figs are most seriously injured by root-knot, among fruit trees. Roses on certain rootstocks are affected, as well as pittosporums, cape jasmines and some other ornamentals.

CATALOGUES RECEIVED.

[In writing for a copy of any of the catalogues reviewed below, please mention that you saw it described in *The American Nurseryman*.]

D. Hill Nursery Co., Dundee, Ill.—Circular listing comprehensive offers to the trade of lining-out and B & B evergreen stock. Scarcity of some grades is mentioned. Seedlings of a half-dozen deciduous items are added to the list. Hill's Golden Fitzer Juniper is given special prominence.

W. T. Smith Co., Geneva, N. Y.—Trade list of nursery stock, including fruit and ornamental trees, ornamental shrubs, evergreens, hedge plants, roses and perennials. Peonies, phloxes and roses are especially well represented. A group of large-size shrubs is mentioned on the back cover.

Gladwood Gardens, Copemich, Mich.—Descriptive circular of unusual plants and seeds for autumn and spring. It is said that some of the items have never before been offered in this country, while others are little known despite superior merit. All the items are hardy.

Gerbing's Azalea Gardens, Fernandina, Fla.—A descriptive booklet of camellias and azaleas, including rare varieties in both groups. Wholesale sale prices are given on an insert.

Cottage Gardens, Lansing, Mich.—Wholesale offerings of peonies (Chinese, Japanese and tree), French hybrid lilacs, flowering crab apples, evergreens and perennials.

Krieger's Wholesale Nursery, Bridgeman, Mich.—Wholesale price list of grapes, asparagus, rhubarb, currant and berry plants. All prices are quoted at the thousand rate.

Glendale Farm & Garden, Perry O.—Wholesale price list of *Lilium regale* and *tenuifolium*, offered in bulbs and seeds. The bulbs are now ready for shipment. Cultural notes are given in the circular.

Kulper N. V., Veendam, Holland.—Trade price list of rose and fruit tree stocks for autumn delivery, mostly 1-year seedlings and cuttings. A number of hedge plants are also offered in the same grades.

Amawalk Nursery, Amawalk, N. Y.—Fall offers of deciduous and evergreen trees, priced at retail. Quantities available are given.

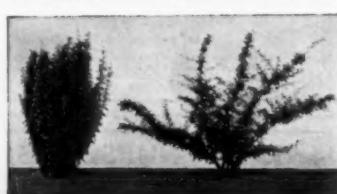
Conard-Pyle Co., West Grove, Pa.—Trade list of Star roses, shrubs, evergreens, etc., for fall and spring. Included are novelties, new patented varieties and a great many standard roses. New and popular varieties also appear in the shrub section, and there are sizes for resale and young stock to rebuild assortments. The evergreens are for the Japanese beetle area only, according to a note.

Princeton Nurseries, Princeton, N. J.—1937 fall price list, said to contain only varieties and sizes which the firm has in quantity and which are most commonly used by the wholesale trade. More complete lists appear in the retail catalogue. The 70-page trade list, how-

Truehedge Columnberry

Berberis Thunbergii Pluriflora Erecta

U.S. Patent
No. 110
Propagation
Rights
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New Truehedge Columnberry

Common Barberry

Compare these 2-year-old plants

THE PLANT SENSATION OF THE DECADE

The value of this wonder spire plant has been proven beyond a shadow of a doubt by the general acceptance of the trade. Over 600,000 plants being sold since introduction in the fall of 1934.

A rather limited supply is available for fall 1937. The established prices are as follows:

SIZE	Per 10	Per 100	Per 1000	WHOLESALE	RETAIL
9 to 12 inches.....	\$1.50	\$12.00	\$105.00	\$.30	\$1.25
12 to 15 inches.....	1.80	14.50	130.00	.35	1.45
15 to 18 inches.....	2.25	18.50	165.00	.45	1.75
1 1/2 to 2 feet.....	2.80	24.00	210.00	.60	2.25
2 to 2 1/2 feet.....	3.50	30.00	270.00	.75	2.75
2 1/2 to 3 feet.....	4.75	46.00	360.00	.90	3.50
					16.25
					60.00

The large complete book depicting the "Ready-Made" hedge is available upon request. Purchases may be made direct from the Cole Nursery Co. or from the following licensed distributors:

Adams Nursery, Inc. . . Springfield, Mass.
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C. R. Burr & Co. . . Manchester, Conn.
Henry A. Dreer, Inc. . . Philadelphia, Pa.
Fairview Evergreen Nursery . . . Fairview, Pa.
Chas. Fiore Nurseries . . . Prairie View, Ill.
I. E. Ilgenfritz's Sons Co. . . Monroe, Mich.
Jackson & Perkins Co. . . Newark, N. Y.

WRITE for wholesale catalogues
The COLE NURSERY COMPANY (Est. 1881) **Painesville, Ohio**
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E. D. Smith & Sons Co. . . Winona, Ont., Can.
Stars & Harrison Co. . . Painesville, O.
Wayside Gardens Co. . . Mentor, O.

OBITUARY.

Dr. Jean H. Nicolas.

Dr. Jean Henri Nicolas, rose expert in charge of the research laboratories of the Jackson & Perkins Co., Newark, N. Y., died of heart disease Saturday, September 25, at the Hotel Ten Eyck, Albany, N. Y. He was 62 years old. Dr. Nicolas, with Peter Enser, of the Buffalo Rose Society, and other rose



Dr. Jean H. Nicolas.

growers, had been making a tour of the rose gardens of Pennsylvania, New Jersey and New York.

New roses raised by Dr. Nicolas have won gold and silver medals and other awards in the United States and in Europe. The Italian government recently presented a gold medal to him for a hybrid tea rose, Eclipse. Twenty-one of the roses originated by Dr. Nicolas have found popular acceptance. To five of them, the gold medal of the American

Rose Society was awarded; these roses are Eclipse, Rochester, Empire State, Gloaming and Carillon.

At the time of his death, Dr. Nicolas was engaged in experiments involving the crossing of hardy rose strains with hybrid teas.

Dr. Nicolas was born in Roubaix, near Lille, France, and studied at the College de Roubaix and at the University of Paris. The latter institution recently conferred on him the honorary degree of doctor of natural science. The French government, which already had made him a Chevalier of the Legion of Honor, bestowed the Order of Merite Agricole upon him last year for distinguished accomplishments in roses. Dr. Nicolas had received the palm of the French Academy.

He was a trustee of the American Rose Society, vice-president of the National Rose Society of England and of the French Rose Society, Les Amis des Roses. He was also an honorary life member of the National Horticultural Society of France and the German Rose Society. He was a lecturer and was the author of numerous magazine articles and several books on roses. Among the latter, "A Rose Odyssey" was published this year.

Frederick H. Wissenbach.

Frederick H. Wissenbach, owner of Squirrel Hill Nursery, Inc., Pittsburgh, Pa., died September 19, after a short illness. With his sons, he had conducted a highly successful landscape and nursery business, which is being continued under the old firm name by the sons and one daughter.

Mr. Wissenbach was a member of the American Association of Nurserymen, the Western Pennsylvania Nurserymen's Association and the Pittsburgh Florists' and Gardeners' Club.

The funeral was held September 22, from the family home, with solemn high mass of requiem at St. Philomena's church. The survivors are his widow, Mary Hughes Wissenbach; six sons, and five daughters.

RECENTLY incorporated at Houston, Tex., is Big Tree Co., Inc., by William Grindle, S. Arai and Niko Arai.

CLASSIFIED ADVERTISING

SITUATION WANTED

By lady secretary and office manager; 18 years' experience in well known mail-order nursery, with full charge of correspondence, catalogues, copy and organization of all clerical help. Not afraid of hard work and long hours. References furnished as to capability, intelligence and honesty. Steady employment and good wages expected. Address No. 70, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

SITUATION WANTED

Nursery manager, specialized knowledge and skill, capable operating on sound, efficient and progressive basis office, sales, propagation, growing, complete landscape service; ability to deal with people, broad practical life experience gained in leading nurseries Boston and New York area. Address No. 71, c/o American Nurseryman, 508 S. Dearborn St., Chicago, Ill.

FOR SALE

Due to old age, we have decided to retire from all business and to sell our nurseries. They contain up to 60 acres of good land, 30 acres planted to fruit trees, 20 acres to small fruit plants, all buildings nearly new and in good condition, city conveniences and residence in every way. Immediate possession if wanted. May be sold in part if interested. Best to come and see the place. Location 75 miles from Chicago, Ill., on U. S. 12, Michigan.

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539 Smithfield Avenue Pawtucket, R. I.	Each
NORWAY SPRUCE, 3 to 4 ft.....	\$0.50
4 to 5 ft.....	.60
CAROLINA HEMLOCK, 2 to 3 ft... 1.00	
Heavy sheared specimens,	
3 to 4 ft.....	1.75
4 to 5 ft.....	2.50
NORWAY MAPLES, 1 1/2-in. cal... 1.00	
1 1/2 to 2-in. cal.....	1.50
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SIBERIAN ELMS, 1 1/2 to 2-in. cal.. .75	
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TAXUS CAPITATA, 1 to 2 ft.... 1.00	
2 to 3 ft.....	1.75
3 to 3 1/2 ft.....	3.00

APPLE TREES

We offer to the trade an extra-fine lot of 1-year Apple Trees; all grown from Whole Root Grafts. A complete list to select from. This stock is unusually vigorous and strong. Your customers will like these trees.

Send us your list of requirements for special fall booking prices.

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Taxus media Hatfieldii
XX, bushy, 8 to 12 ins., 25c
XX, bushy, 12 to 18 ins., 35c
Clethra alnifolia, transplanted
Bushy, 18 to 24 ins., 15c
Viburnum Opulus, 12 to 18 ins., 5c
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4-year-old, 10 to 12 ins. out of 2-in. pots. No set back, every tree grows, no shading needed.

\$30.00 per 100

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From this year's crop (not cleaned). \$1.00 per lb. NANDINA seed (berries), fresh crop. \$1.00 per lb. CHERRY LAUREL seed (berries), fresh crop, 25c per lb.

Fruitland Nurseries Augusta, Ga.

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Cotoneaster Acutifolia, 18 to 24 ins.; 2 to 3 ft. Cornus Paniculata, 18 to 24 ins.; 2 to 3 ft. Cornus Stolonifera, 18 to 24 ins.; 2 to 3 ft. Rosa Sertigera, 18 to 24 ins.; 3 to 4 ft. Rosa Blanda, 18 to 24 ins. Ribes Alpinum, 15 to 18 ins.; 18 to 24 ins. Rhus Canadensis, 18 to 24 ins.; 2 to 3 ft. Bellaria Poplar, 5 to 6 ft.; 6 to 8 ft. Ask for quotations

ESCHRICHS NURSERY, Sta. F, Milwaukee, Wis.

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A very fine hardy decorative evergreen EXTRA-STRONG; 1 year old PREPAID, \$12.00 per 1000

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One-year, 6 to 8 ins., beautiful, well grown stock, propagated from tried and proved "Mother Plants." Special cash-with-order price—boxwood, \$12.50 per 1000; 10,000 for \$100.00.

Alta Vista Nurseries
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We offer for fall season 1937, best block of Sugar Maples we have ever grown, 1 to 1½-inch caliper.
Populus Simoni, 6 to 8 to 12 to 14 ft.
Thuja Occidentalis specimens, 5 to 7 ft.
Grafted Wisteria Chinensis, 2 to 6 years.
Write for prices and quantities.

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500,000 of the finest grapevines we ever grew await your order. All the leading varieties in 1 and 2-year size. Get our price list before placing order.

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QUARANTINE EXEMPTIONS.

In accordance with the proviso in notice of United States Department of Agriculture quarantine No. 45, pertaining to the gypsy and brown-tail moths, as revised effective November 4, 1935, the following articles, the interstate movement of which is not considered to constitute a risk of moth dissemination, are exempted from the restrictions of the regulations of this quarantine, according to Lee A. Strong, chief of the bureau of entomology and plant quarantine:

Acacia cuttings for ornamental use (Acacia spp.).
Banana stalks, when crushed, dried and shredded.
Birch slabs for use as postal cards.
Cable reels, when newly manufactured and empty.
Clubmoss (sometimes called ground pine) (Lycopodium spp.).
Evergreen smilax (Smilax lanceolata).
Fuchsia (Fuchsia spp.).
Gilia (Gilia spp.).
Genista (Genista spp.).
Heather cuttings for ornamental use (Erica spp., Calluna spp.).
Heliotrope (Heliotropium spp.).
Herbarium specimens, when dried, pressed and treated, and when so labeled on the outside of each container.
Jerusalem cherry (Solanum capsicatum).
Pseudo-capsicum, B. Hendersonii.
Leaves of deciduous and evergreen trees that have been treated or dyed.
Mistletoe (Phoradendron flavescens, Viscum album, etc.).
Oregon grapeberry (Vaccinium ovatum).
Partridgeberry (Mitchella repens).
Strawberry plants (Fragaria spp.).
Trailing arbutus (Epigaea repens).
Verbena (Verbena spp.).
Wintergreen (Gaultheria spp., Pyrola spp.).

BEETLE QUARANTINE CHANGE.

Restrictions on the movement of fruits and vegetables under the Japanese beetle quarantine regulations were removed for the season September 22 by authority of the Secretary of Agriculture. Restrictions on cut flowers, however, will remain in force through October 15. Inspection of fruits and vegetables is necessary only during the period when adult beetles are in active flight. There is no risk that such products will carry the Japanese beetle after this active period, which is now apparently over throughout the regulated area. There is still danger, however, that the adult beetle may be transported in cut flowers.

Restrictions on the movement of nursery, ornamental and greenhouse stock and all other plants (except cut flowers and portions of plants without roots and free from soil) are in force throughout the year and are not affected by this amendment.

NEW PEACH PATENT.

According to Rummler, Rummler & Woodworth, patent lawyers of Chicago, a peach patent was issued September 14, 1937:

No. 262. Peach. William Leon Plants, near Marysville, Cal. A new and distinct variety of peach tree, characterized particularly by its slightly drooping form and long foliage and its fruit, which ripens at the same time as the Phillips Cling, having firm, exudation-resisting flesh desirable for canning purposes, also being free from gumming, splitting of pit and reddening at the pit.

JOHN C. PAPPEINER has purchased property on Van Nuys boulevard, south of the Los Angeles river bridge, Van Nuys, Cal., for a nursery, which he expects to devote to hardy perennials, alpine plants and plants from Siberia.

CHARLES H. LIGHTFOOT recently purchased the Cen-Tex Nursery Co., formerly known as the Scott Nursery Co., at Waco, Tex.

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Pot-grown plants; over a hundred varieties.
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Other plants of unusual character and
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Treat Cuttings with HORMODIN "A" and grow vigorous plants in much less than normal time

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Consider the dollars and cents value of these Hormodin advantages. You can hasten the development of slower rooting species—transplant some varieties directly from the bench to field conditions—propagate from cuttings many species that ordinarily do not root successfully.

Hormodin comes in liquid form and is applied as a dilute water solution. The cost is only a fraction of a cent per cutting. To assure uniform root-forming potency, every batch of Hormodin is standardized both chemically and physiologically.

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This photograph shows the amazing root-growing power of Hormodin. Both the treated and untreated cuttings were in the same propagating bench under the same conditions the same length of time. Hormodin alone is responsible for the more profuse root growth.



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